

APPENDIX

Downtown Fargo Streets Playbook

The Playbook

The *Downtown Fargo Streets Playbook* documents streets in Downtown Fargo, their existing and future roles in the street network, and illustrates a proposed street configuration that better supports future conditions. The *Playbook* identifies streets that play key roles in the street network for different modes, and makes recommendations that take advantage of streets with excess capacity and space on streets with flexibility to change.

FARGO'S PROPOSED STREET NETWORK

The Proposed Street Network Map (Figure A1) identifies streets that play key roles in the future street network and the modes of transportation each must support. Some key factors influenced the future role of a street:

- > Current business density, and future capacity along each segment
- > Parking demand in the area resulting from zone analysis of parking demand
- > Coordination with the proposed on-street bike network
- > Proximity to parks, open space, and riverfront access
- > Arterials that play a key role in connecting to the regional highways network
- > Capacity of a street segment to carry vehicles; flexibility to rebalance vehicular lanes to other uses
- > Destinations located along key segments, and the likely means of visitor access

The *Playbook* lays out a roadmap for the design of Fargo's streets, so that when the time comes to rebuild them, the effort develops a coordinated network which can flex to meet the new transportation demands as time goes on. Using the Proposed Street Network Map as a guide, each section is shown in its existing form alongside a proposed design, which illustrates a streetscape that enhances the street for a priority user or function. The main categories include:

- > **Pedestrian Enhancement Focus:** These segments follow existing retail blocks and those identified as having capacity for commercial expansion. These are primary pedestrian pathways where sidewalk expansion, landscaping, and pedestrian amenities will have the biggest impact on the experience moving along the block.
- > **Bicycle Connection:** These segments correspond with the proposed bike network for Downtown. On these segments excess street width has great potential to be reconfigured to provide on-street bike facilities ranging from sharrows to grade-separated lanes..
- > **Vehicle Flow Focus:** Many of these street segments play an important role in the regional access to and from downtown by car. These streets reach from downtown out to larger streets and highways in the regional network, and generally carry more traffic volume. Along these segments, a potential reconstruction design's impact on the number of lanes and carrying capacity is minimized.
- > **Pedestrian Enhancement Focus, Maintain Vehicle Capacity:** Along some blocks, it will be important to maintain the same number of vehicle lanes, but there are opportunities for pedestrian enhancement in space recovered by narrowing vehicle lanes or changes to on-street parking.

- > **Local / Flex Streets:** These street segments are typically only a few blocks long. They provide local connections to businesses and destinations, carry much lower traffic volumes, and do not play a major role in moving vehicles into and out of downtown. Along these segments, there is a lot of design flexibility to suit the context. In some areas these streets could maximize parking, or have slow moving traffic that could be comfortable for cyclists. Like other streets in Fargo, many of these short segments are wide and under-capacity, offering lots of design flexibility.
- > **Neighborhood Character Slow Street:** These streets are great candidates for traffic calming strategies like neck-downs or bulb-outs.
- > **Intersection Enhancement:** The color of the circle indicates the mode – walking, biking, or driving – that should drive the intersection enhancements.

In the future, streetscape enhancements in Downtown Fargo should work to realize a holistic vision for downtown streets that marry both aesthetics and experience, with function for all users.

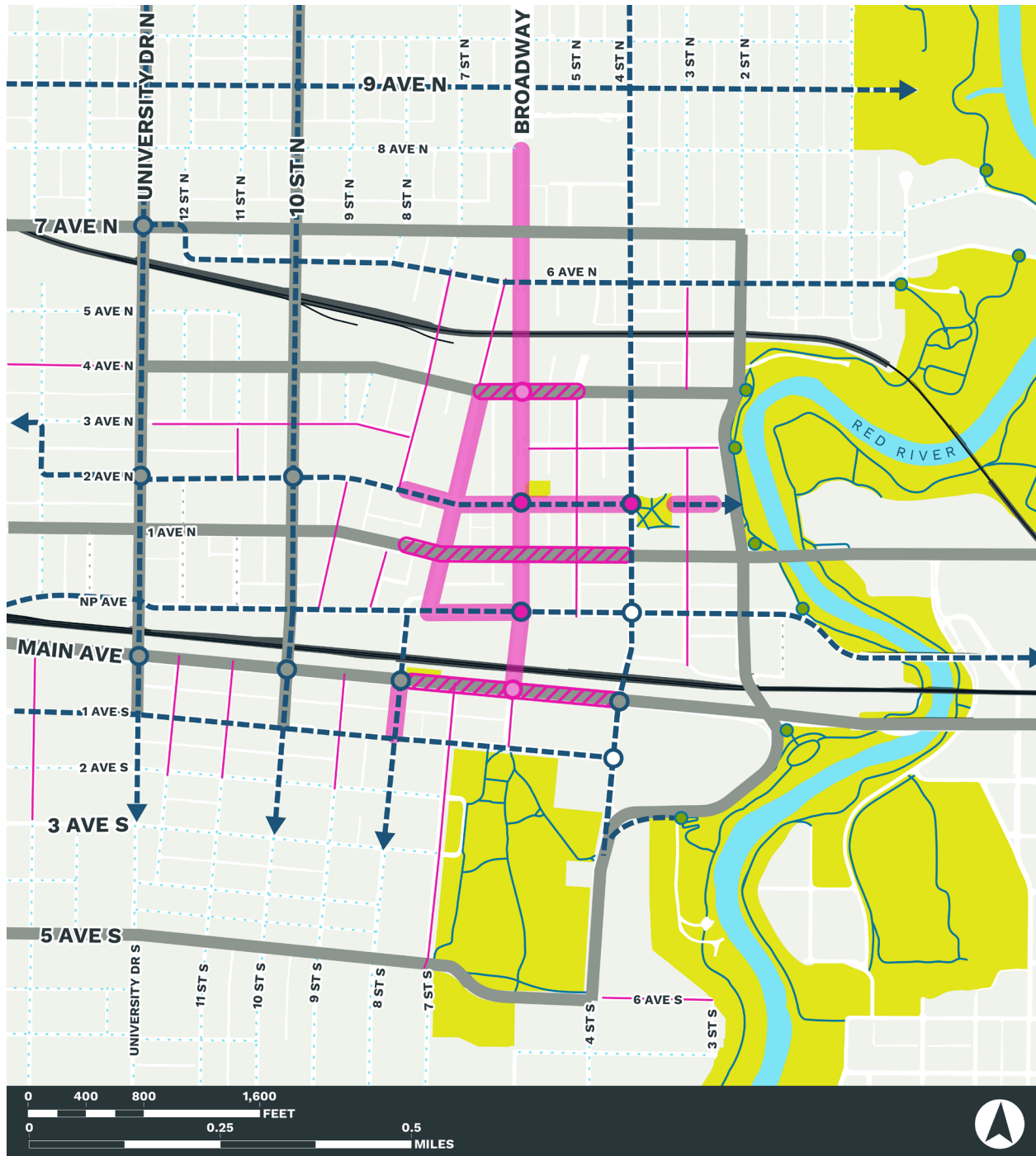


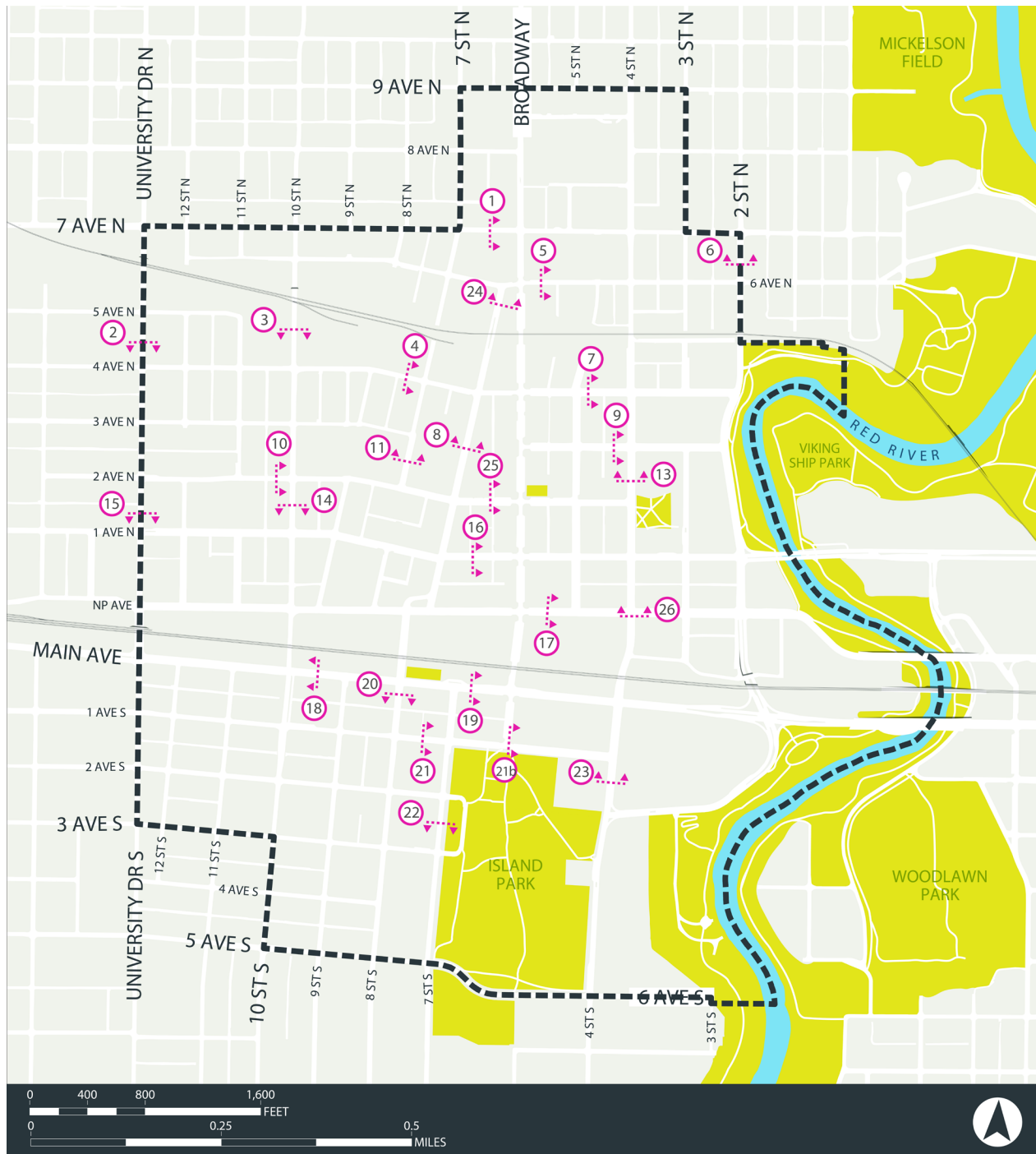
FIGURE A1: Proposed Street Hierarchy Map

Proposed Street Network

Source: Sam Schwartz

List of Figures

Figure A1: Proposed Street Hierarchy Map.....	3	Figure A27: Proposed Section Location at #9.....	25
Figure A2: Section Locations Map.....	5	Figure A28: Existing Section Location at #10.....	27
Figure A3: Existing Section Location at #1.....	7	Figure A29: Proposed Section Location at #10.....	27
Figure A4: Proposed Section Location at #1.....	7	Figure A30: Existing Section Location at #25.....	29
Figure A5: Existing Section Location at #14.....	9	Figure A31: Proposed Section Location at #25.....	29
Figure A6: Proposed Section Location at #14.....	9	Figure A32: Existing Section Location at #11.....	31
Figure A7: Existing Section Location at #15.....	10	Figure A33: Proposed Section Location at #11.....	31
Figure A8: Proposed Section Location at #15.....	10	Figure A34: Existing Section Location at #17.....	33
Figure A9: Proposed Section Location at #2.....	11	Figure A35: Proposed Section Location at #17.....	33
Figure A10: Proposed Section Location at #3.....	11	Figure A36: Existing Section Location at #19.....	34
Figure A11: Example of a curb separated bike lane.....	11	Figure A37: Proposed Section Location at #19.....	35
Figure A12: Existing Section Location at #16.....	13	Figure A38: Proposed Section Location at #19.....	35
Figure A13: Proposed Section Location at #16.....	13	Figure A39: Existing Section Location at #20.....	37
Figure A14: Existing Section Location at #6.....	15	Figure A40: Proposed Section Location at #20.....	37
Figure A15: Proposed Section Location at #6.....	15	Figure A41: Existing Section Location at #21a.....	39
Figure A16: Existing Section Location at #4.....	16	Figure A42: Proposed Section Location at #21a.....	39
Figure A17: Existing Section Location at #7.....	17	Figure A43: Existing Section Location at #21b.....	41
Figure A18: Proposed Section Location at #7.....	17	Figure A44: Proposed Section Location at #21b.....	41
Figure A20: Existing Section Location at #5.....	19	Figure A45: Existing Section Location at #22.....	43
Figure A21: Proposed Section Location at #5.....	19	Figure A46: Existing Section Location at #13.....	45
Figure A22: Existing Section Location at #8.....	21	Figure A47: Proposed Section Location at #13.....	45
Figure A23: Proposed Section Location at #8.....	21	Figure A48: Existing Section Location at #26.....	46
Figure A24: Existing Section Location at #24.....	23	Figure A49: Proposed Section Location at #26.....	46
Figure A25: Proposed Section Location at #24.....	23	Figure A50: Existing Section Location at #23.....	47
Figure A26: Existing Section Location at #9.....	25	Figure A51: Proposed Section Location at #23.....	47



Refer to the list of figures on the previous page to locate these existing and proposed street sections in the *Playbook*.

Playbook Section Locations

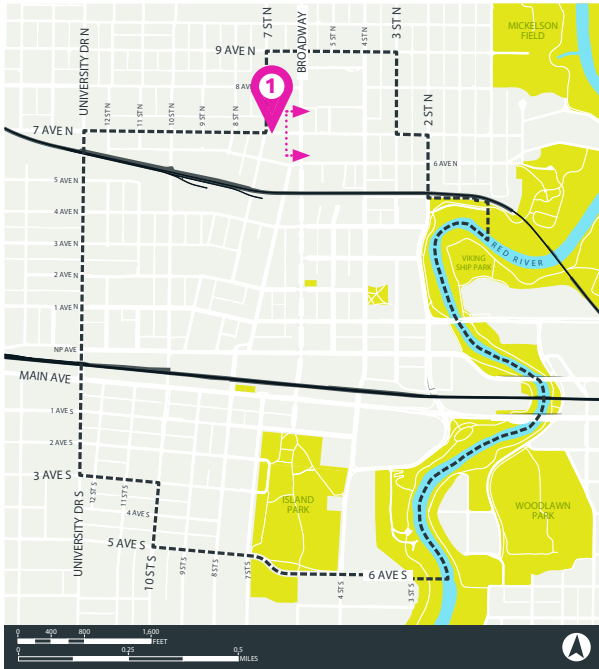
Source: Sam Schwartz

- RAIL**
- OPEN SPACE**
- DOWNTOWN FOCUS AREA**

FIGURE A2: Section Locations Map

7th Avenue North

7th Ave North between University Drive and 2nd Street North



Existing Section Location

THE BASICS:

Functional Classification: Minor Arterial

Speed: 25 mph

Number of Lanes: 2 lanes

Curb-to-Curb Width: 34 feet

ROW Width (approximate): 68 feet

Public Transit Route: N/A

Parking: Time restricted parking exists on the south side of the street

CONSIDERATIONS

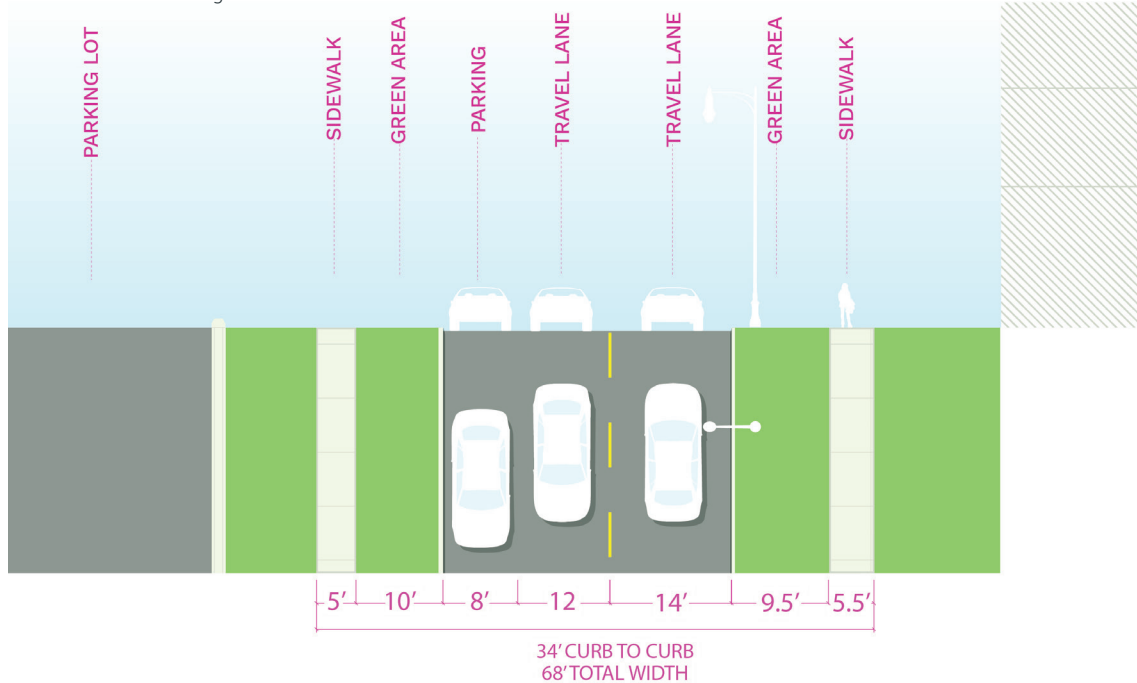
- > 7th Avenue North provides one of the only contiguous connections to the east and west beyond the downtown study area to Highway 81.
- > 7th Avenue North is a key connection to the Sanford Hospital campus.
- > Due to the 34 foot curb-to-curb width, there is not sufficient width for an additional parking lane.
- > Installing bike lanes would preclude the existing parking lane.
- > The westbound lane along 7th Avenue North is 14 feet wide. A 14 foot lane is wide for a vehicle lane; wide lanes typically encourage drivers to speed.
- > Within the study area, 7th Avenue North has a residential character.

Capacity Analysis:

- > Analysis shows that 7th Avenue North between University Drive and 7th Street North is at capacity. This indicates that the number of lanes on street is needed to move the existing traffic.

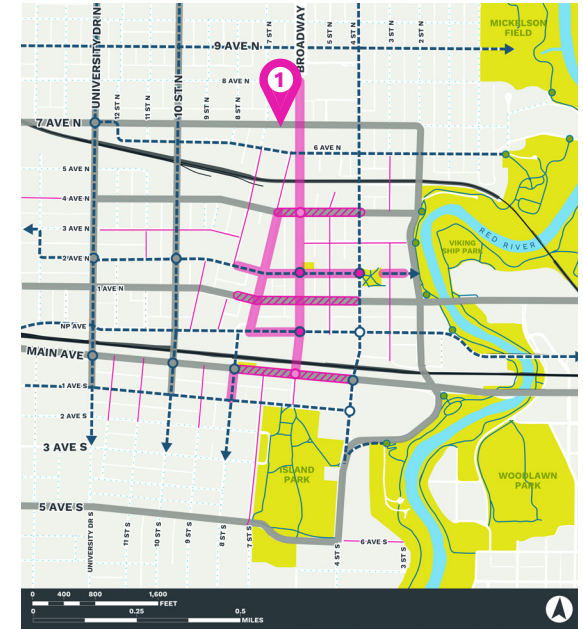
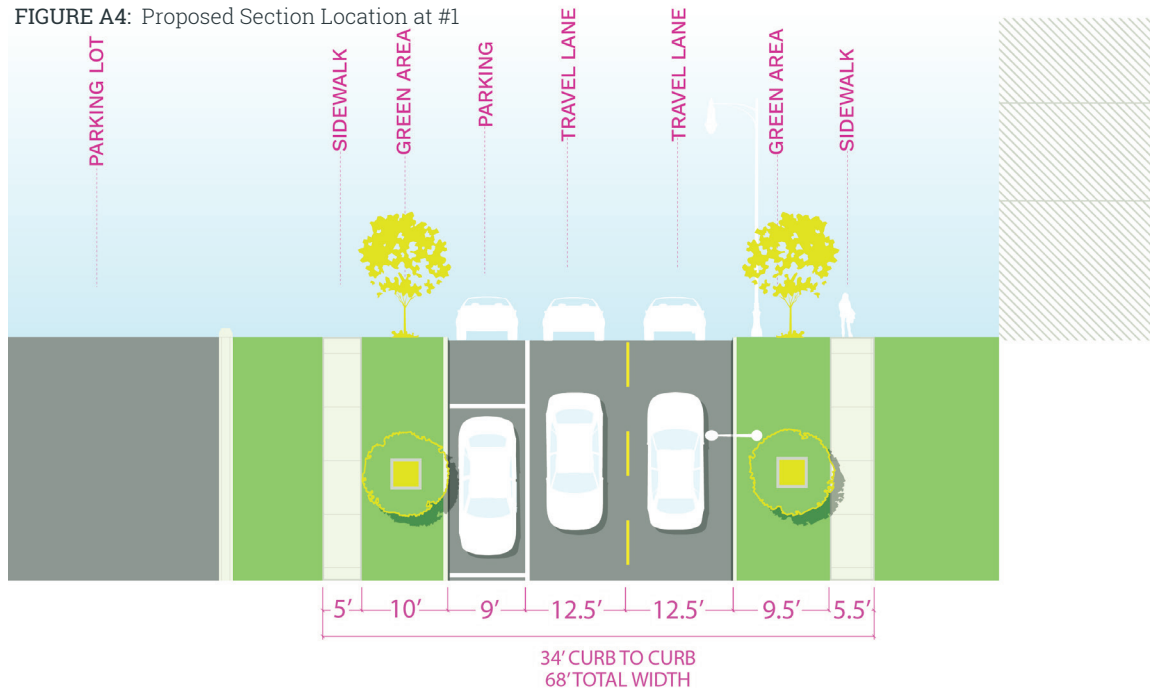
EXISTING on 7th Ave between 7th St and Broadway

FIGURE A3: Existing Section Location at #1



PROPOSED

FIGURE A4: Proposed Section Location at #1



Proposed Street Network Map

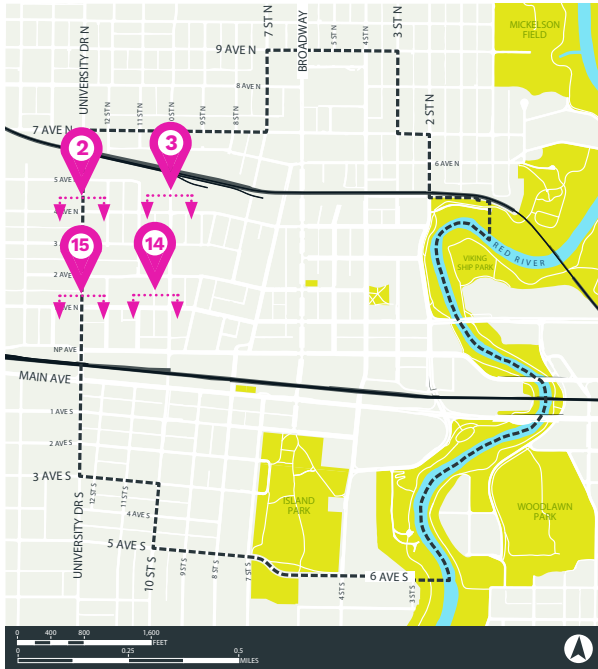
PROPOSED ROLE

7th Avenue will continue to play an important role for vehicles in the future because of its important connection to the west and direct access to the Sanford Hospital campus. Under current conditions, this street is not ideal for a bike connection, and should instead remain in its current configuration primarily serving vehicular circulation.

Proposed Section: Consider restriping with narrowed lanes and a striped parking lane to make the street appear more narrow to drivers. This may slow drivers to better fit the residential character of the street.

10th and University

10th Street North and University Drive between 7th Avenue North & Northern Pacific Avenue



Section Locations

THE BASICS:

Functional Classification: Primary Arterial

Speed: 30 mph

Number of lanes: 2-3 lanes

Curb-to-Curb width: 39 feet

ROW width (approximate): 51 feet (10th Street North), 68 feet (University Drive)

Transit Routes: 13 bus

CONSIDERATIONS

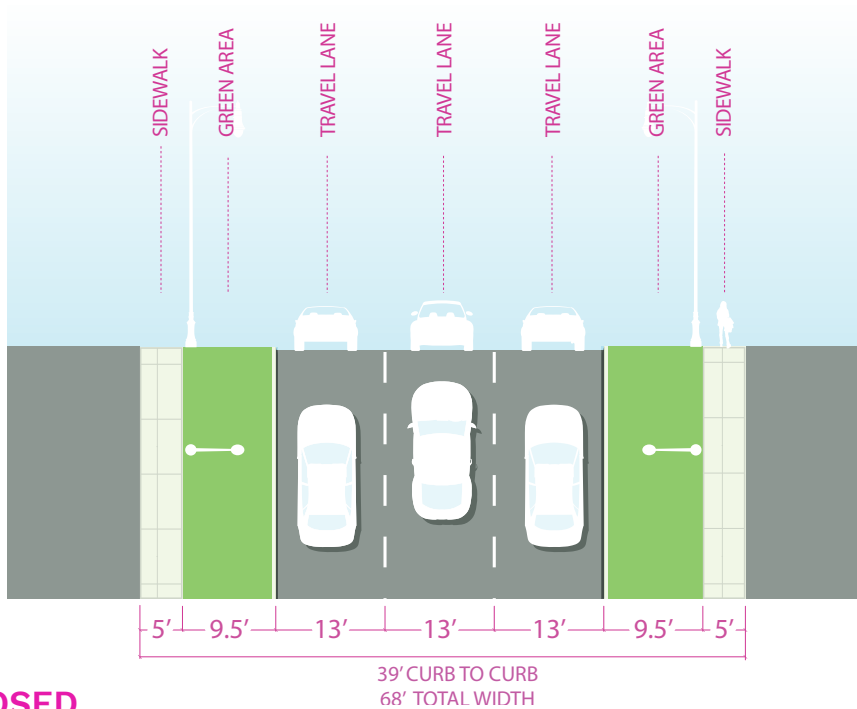
- > 10th Street North (northbound) and University Drive (southbound) are a one-way couplet. One-way couplets typically have a similar section traveling in each direction and operate as a pair in the street network.
- > The 10th Street North/University Drive pair are two of the only streets in the downtown network that cross all railroads, Main Avenue (US-10), and continue without obstruction reaching far to the north and south.
- > University Drive plays an important role in the bicycle network connecting students at NDSU and residents in neighborhoods to the north and south to downtown, and to University buildings along 2nd Avenue. There is an on-street bike facility stretching between NDSU campus and 4th Avenue on both 10th Street North and University Drive.
- > The Northern Pacific Avenue grade-separated bike facility does not connect to these north-south bike routes.
- > The intersection of Main Avenue (US-10) and University Drive poses a significant design challenge and dangerous conditions for cyclists traveling through the intersection. Design of a bike facility through this intersection along University Avenue should accommodate an off-street crossing for cyclists.

Capacity Analysis:

- > Vehicle traffic on University Drive increases as it approaches the Main Avenue (US-10) intersection. Capacity analysis indicates that three vehicle lanes are needed to facilitate vehicular flow between 2nd Avenue North and Main Avenue (US-10) on University Drive.
- > Capacity analysis indicates University Drive may be over capacity near 7th Avenue North.

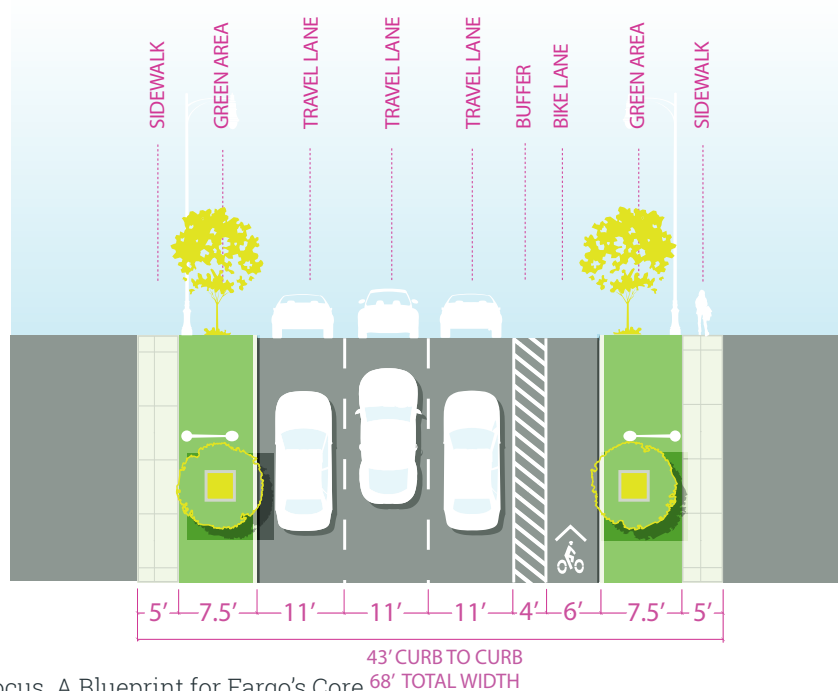
EXISTING on University between 1st Ave and 2nd Ave - Looking South

FIGURE A7: Existing Section Location at #15



PROPOSED

FIGURE A8: Proposed Section Location at #15



Proposed Street Network Map

PROPOSED ROLE

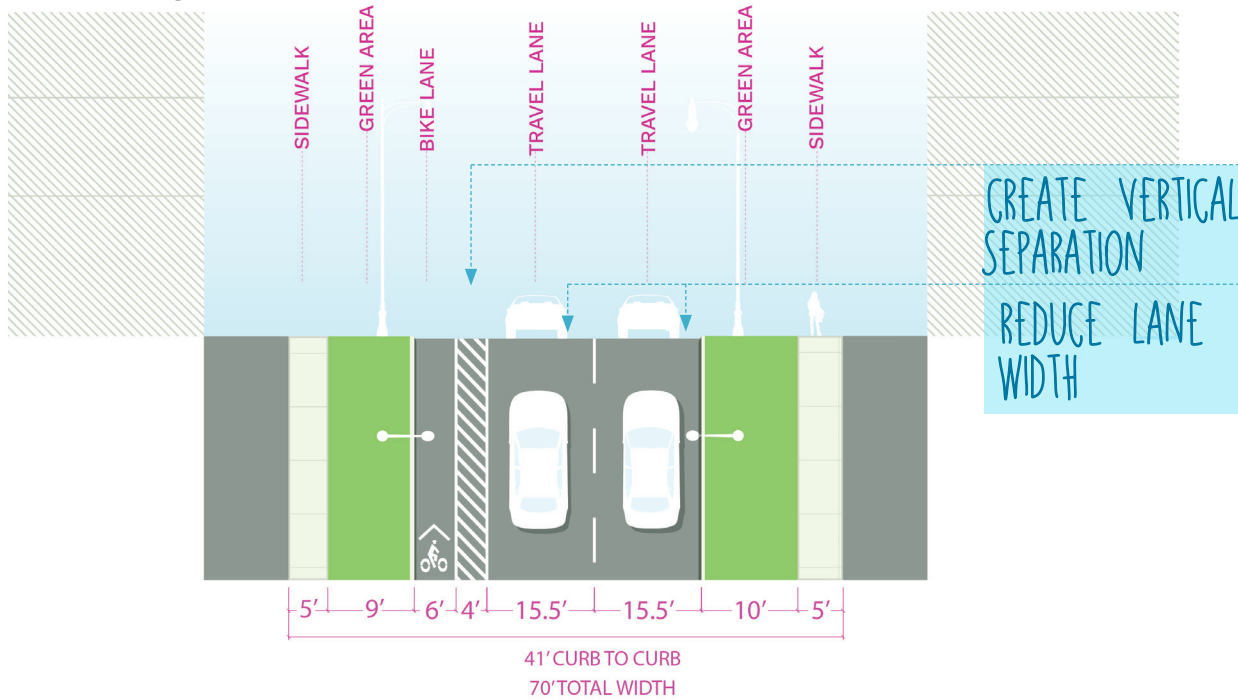
Because of this contiguous connection, the University Drive and 10th Street North couplet plays an important role for all modes in the street network, including cars, bikes and transit. The design of these streets must support multi-modal connections. A bike facility should connect along 10th Street North and University Drive, spanning downtown.

Proposed Section: North of 4th Avenue North, University Drive should maintain the existing section. Because this street is a key bike connection, future enhancement of the buffered bike facilities to separated bike lanes with vertical protection from traffic should be considered.

South of 4th Avenue, the vehicular demand on University Drive increases, but a bike connection is needed to connect with Northern Pacific Avenue and beyond. Reducing the vehicle lane width to 11 foot lanes and widening the street allows for the buffered bike facility to continue south of 4th Avenue with limited impact on capacity.

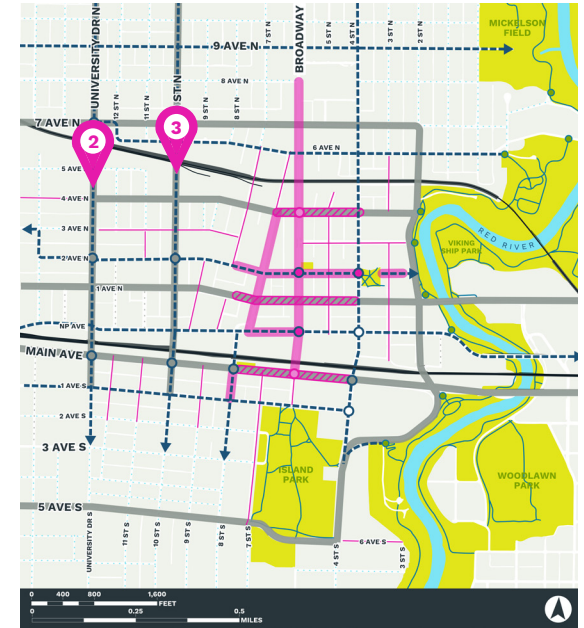
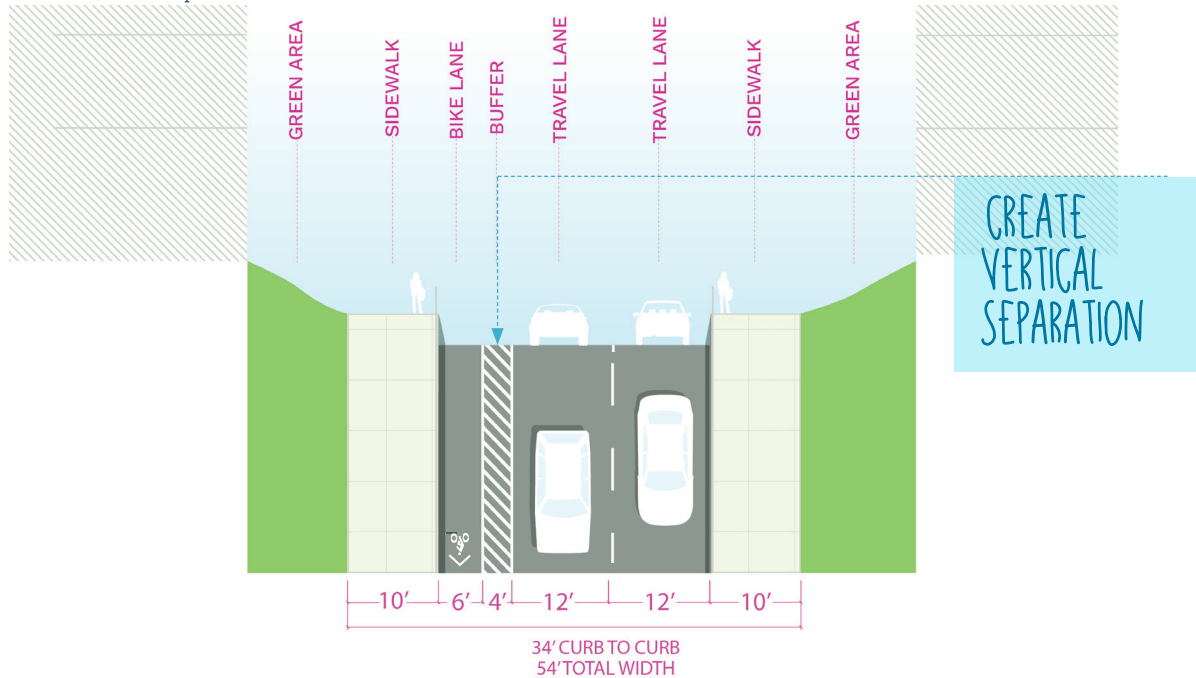
PROPOSED on University between 4th Ave and 5th Ave - Looking South

FIGURE A9: Proposed Section Location at #2



PROPOSED on 10th between 4th Ave and 6th Ave - Looking South

FIGURE A10: Proposed Section Location at #3



Proposed Street Network Map

PROPOSED ROLE

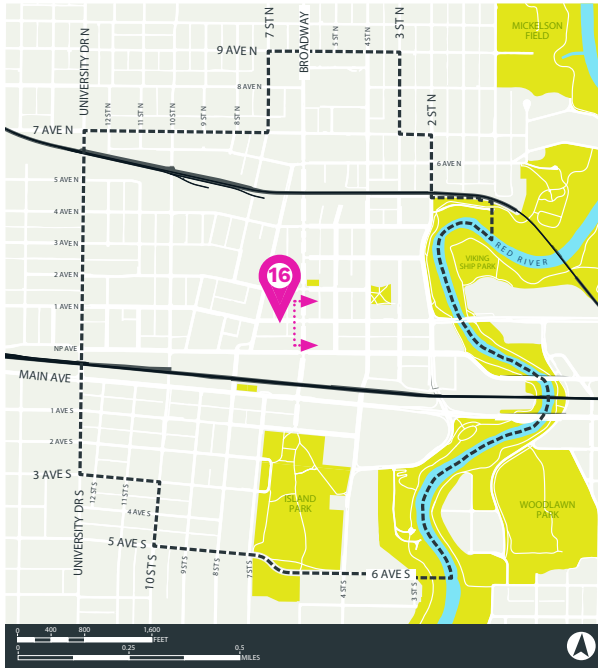
Proposed Section: Create vertical separation by curb protected planted edge on both segments.



FIGURE A11: Example of a curb separated bike lane

1st Avenue North

1st Avenue between University Drive and 2nd Street North



Existing Section Location

THE BASICS:

Functional Classification: Minor Arterial

Speed: 25 mph (varies from 25 to 30 mph within study area)

Number of Lanes: 3 (varies from 2-4 within study area)

Curb-to-Curb Width: 52 feet

ROW Width (approximate): 78' feet

Public Transit Route: Link FM

CONSIDERATIONS

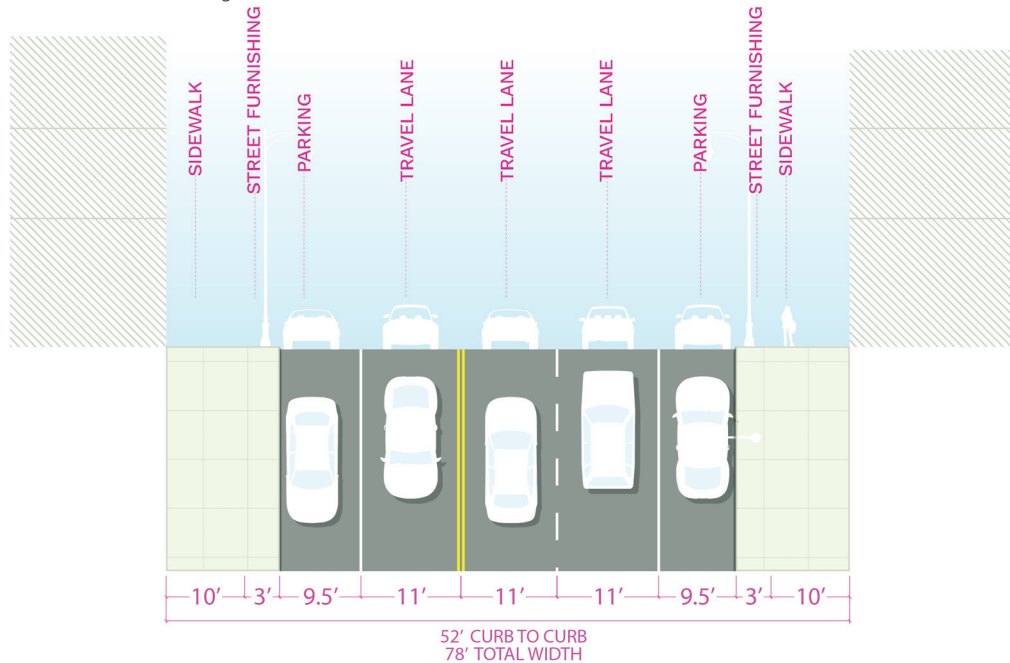
- > 1st Avenue provides an important connection east-west to Moorhead, particularly during morning commutes, with few redundant routes. 1st Avenue North is one of three streets in the study area with a bridge connection to Downtown Moorhead.
- > 1st Avenue provides street connections to Highway 81 (via 36th Street North) and US-10 and US-75 in Moorhead.

Capacity Analysis:

- > 1st Avenue east of 2nd Street North is at capacity. Based on a capacity network analysis, many drivers turn onto 2nd Street North from 1st Avenue after crossing westbound from Moorhead.
- > East of 2nd Street North, there is excess capacity for vehicles in the existing section.
- > Lane reduction on Northern Pacific Avenue or Main Avenue (US-10) is likely to divert some vehicular traffic to 1st Avenue North.

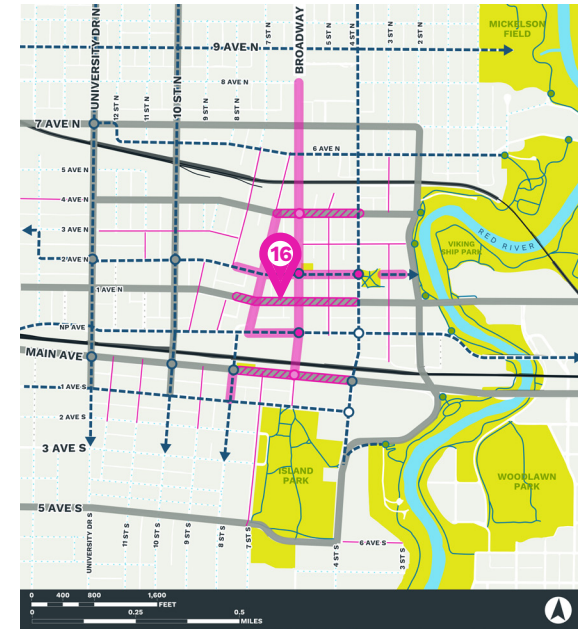
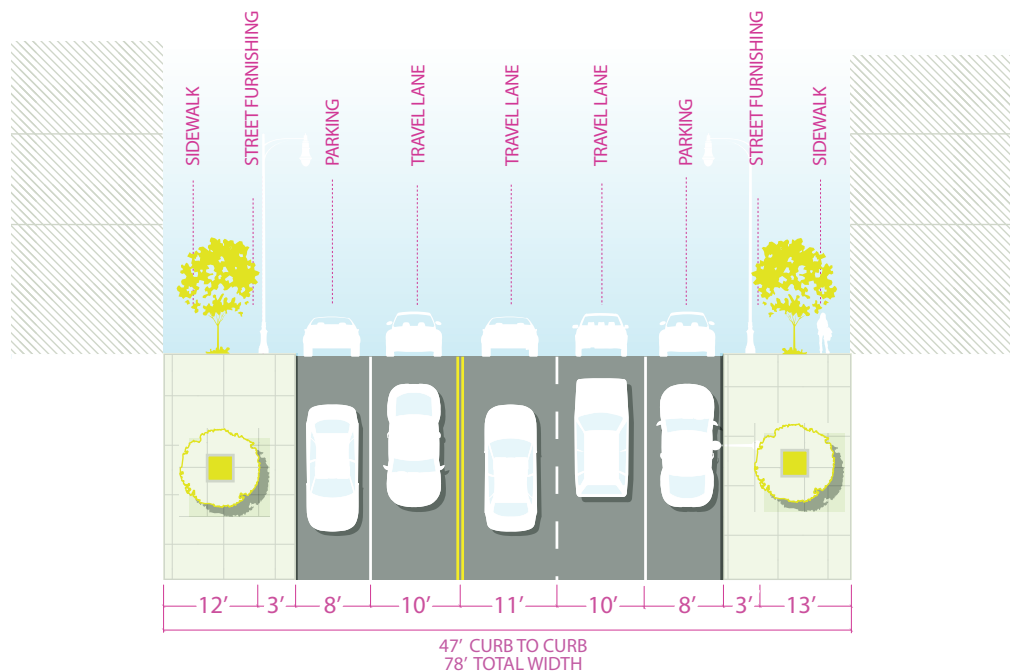
EXISTING on 1st Ave between Roberts and Broadway

FIGURE A12: Existing Section Location at #16



PROPOSED

FIGURE A13: Proposed Section Location at #16



Proposed Street Network Map

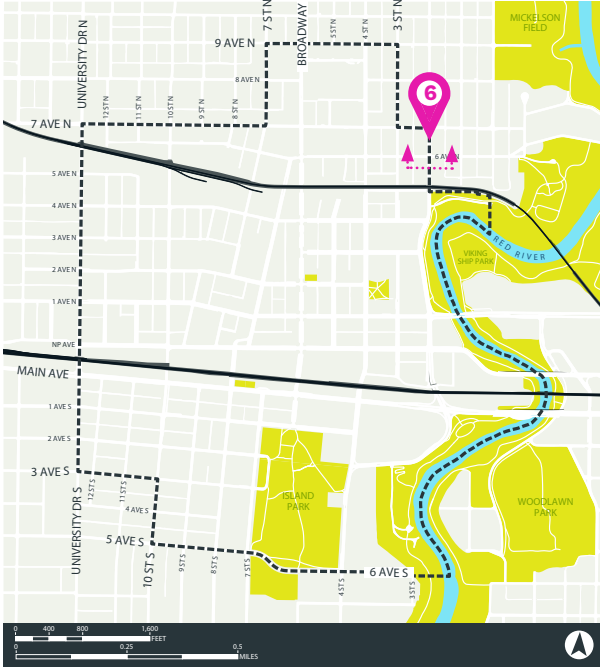
PROPOSED ROLE

1st Avenue and Main Avenue (US-10) will continue to play a key role in facilitating the flow of vehicles into and out of downtown during daily commutes. Northern Pacific Avenue offers the most potential for design change to create a more multi-modal roadway and provides an important connection to Moorhead. With the reduction in lanes proposed on Northern Pacific Avenue as part of a planned reconstruction project by the City to accommodate enhanced bike facility, some drivers are likely to switch to 1st Avenue North. To balance the network, 1st Avenue North should maintain a similar section as Main Ave.

Proposed Section: Maintain a similar section. Potential to reduce vehicle and parking lane widths to extend sidewalk space for enhanced landscaping in future reconstruction scenario.

2nd Street North

2nd Street North between 7th Avenue North and 4th Street South



Existing Section Location

THE BASICS:

Functional Classification: Minor Arterial

Speed: 25 mph

Number of lanes: 4 Lanes

Curb-to-Curb width: 44 feet

ROW Width (approximate): 72 feet

Public Transit Route: N/A

CONSIDERATIONS

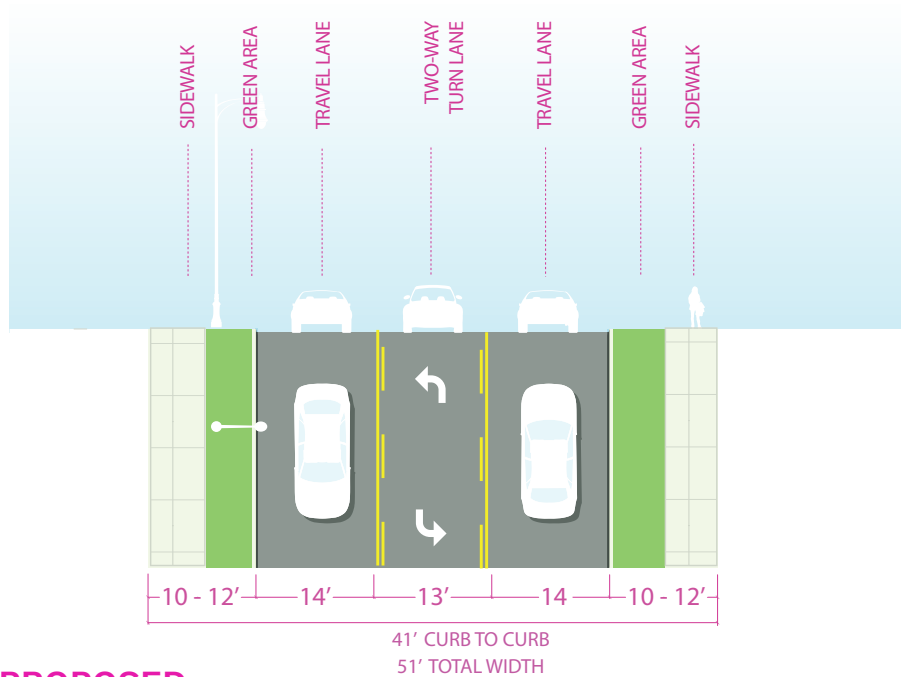
- > 2nd Street North between 1st Avenue and 4th Avenue was recently reconstructed. There is no plan to reconstruct this segment in the immediate future.
- > 2nd Street borders the west bank of Red River; the Red River trail runs parallel along the east side of the street with frequent trail heads. High traffic volumes and the wide street present challenges for pedestrians and cyclists crossing to reach this trail.

Capacity Analysis:

- > 2nd Street North is near capacity between Northern Pacific Avenue and 3rd Avenue North. Circulation analysis shows that 2nd Avenue North plays a key role in disseminating vehicles crossing from Moorhead into the Fargo downtown street network.

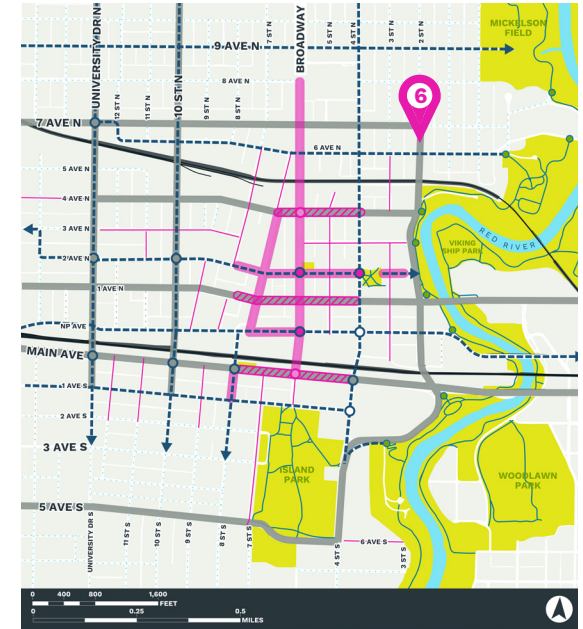
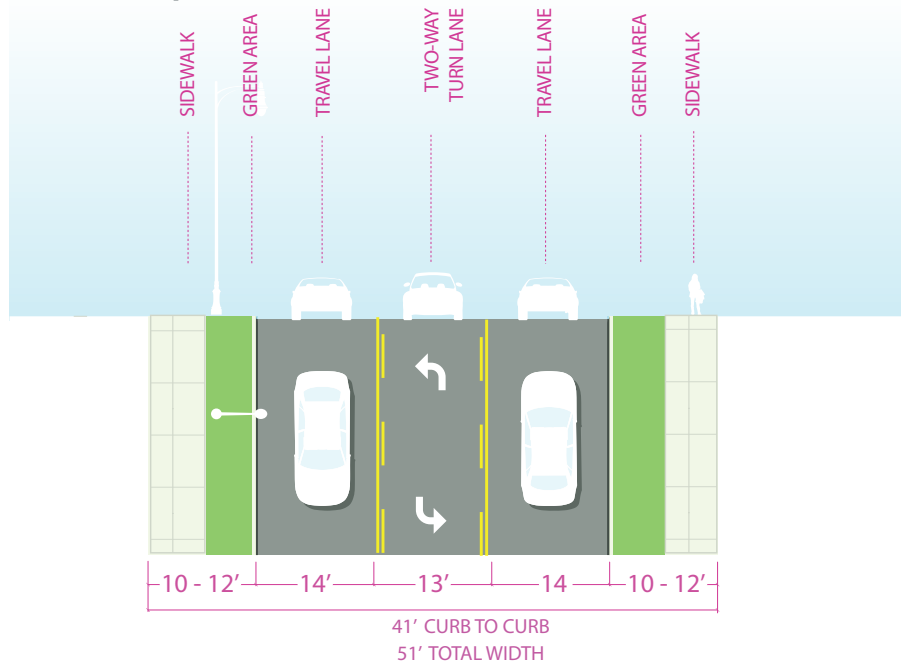
EXISTING on 2nd St between 7th Ave and 6th Ave - Looking North

FIGURE A14: Existing Section Location at #6



PROPOSED

FIGURE A15: Proposed Section Location at #6



Proposed Street Network Map

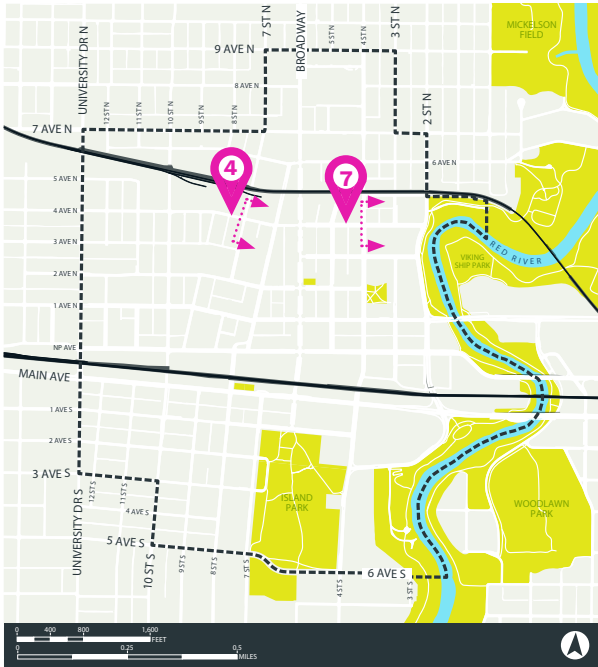
PROPOSED ROLE

2nd Avenue will likely continue to play a key role in moving cars into downtown from the City of Moorhead. There is a need to enhance cross street intersections along 2nd Street North to facility safe crossings for people to reach the Red River and trail. As activity along the riverfront increases, the need for safe crossings will too. Enhanced crossings are even more important along segments of 2nd Avenue North that were recently reconstructed with a wider section.

Proposed Section: No change, focus on intersection enhancement for non-motorized safety.

4th Avenue North

4th Avenue North between 15th Street North and 2nd Street North



Existing Section Locations

THE BASICS:

4TH AVENUE - WEST OF ROBERTS

Functional Classification: Minor Arterial

Speed: 25 mph

Number of lanes: 2 Lanes

Curb-to-Curb width: 34 feet

ROW width (approximate): 74 feet

Public Transit Route: N/A

CONSIDERATIONS

- > 4th Avenue is an important east-west connection in Fargo's existing bicycle network, providing a nearly continuous bike lane from University Drive to the Red River Trail at 2nd Street North. Despite the fact that 4th Avenue has a bike facility, it still ranks as a high-stress street for people biking (LTS 3).
- > 4th Avenue North is an area which experiences high demand for parking spaces.
- > There is opportunity for commercial infill along 4th Avenue North between Broadway Avenue and 2nd Avenue. To take advantage of this opportunity, the quality of the streetscape must improve to provide green space and shade cover, and opportunities for outdoor seating along the building frontage.
- > 4th Avenue North and 3rd Avenue North play a key role in moving vehicles commuting in from outside of downtown along 2nd Street North. These local streets disperse traffic into the local network to their final destination.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

4TH AVENUE - EAST OF ROBERTS

Functional Classification: Minor Arterial

Speed: 25 mph

Number of lanes: 3 Lanes

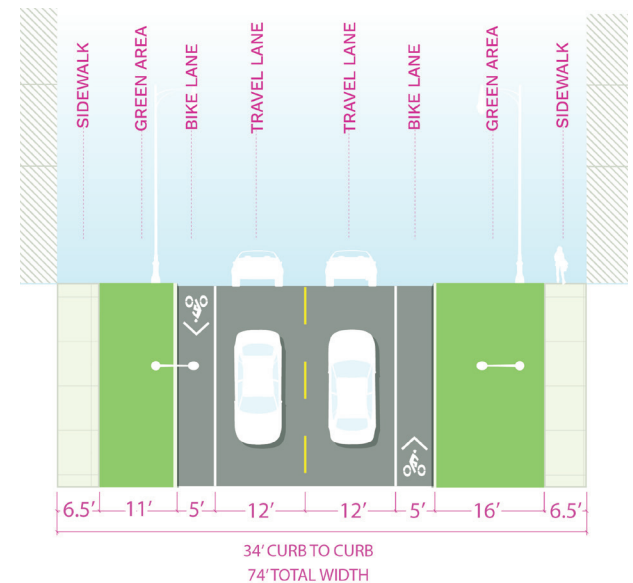
Curb-to-Curb Width: 56 feet

ROW width (approximate): 80 feet

Public Transit Route: N/A

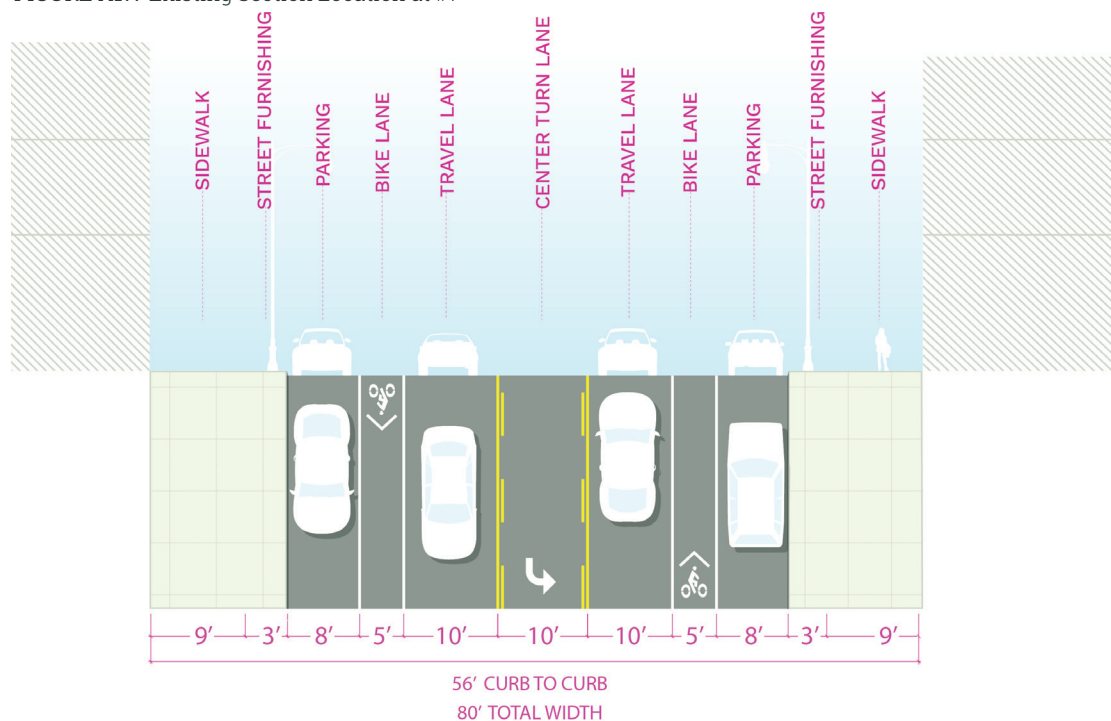
EXISTING on 4th Ave between 10th St and 7th St.

FIGURE A16: Existing Section Location at #4



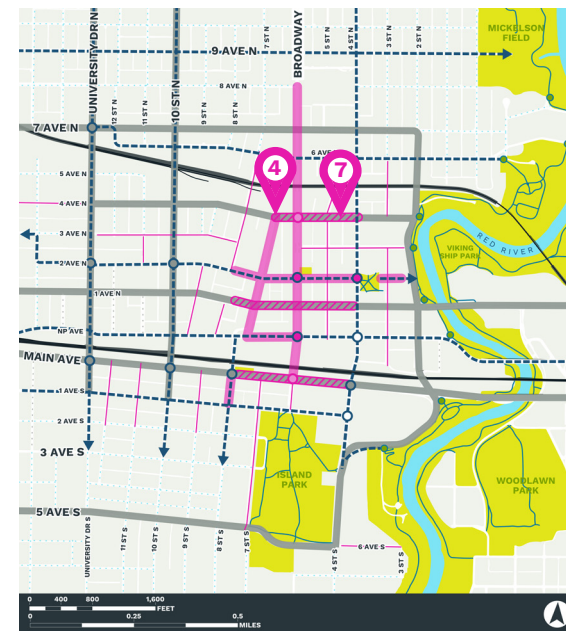
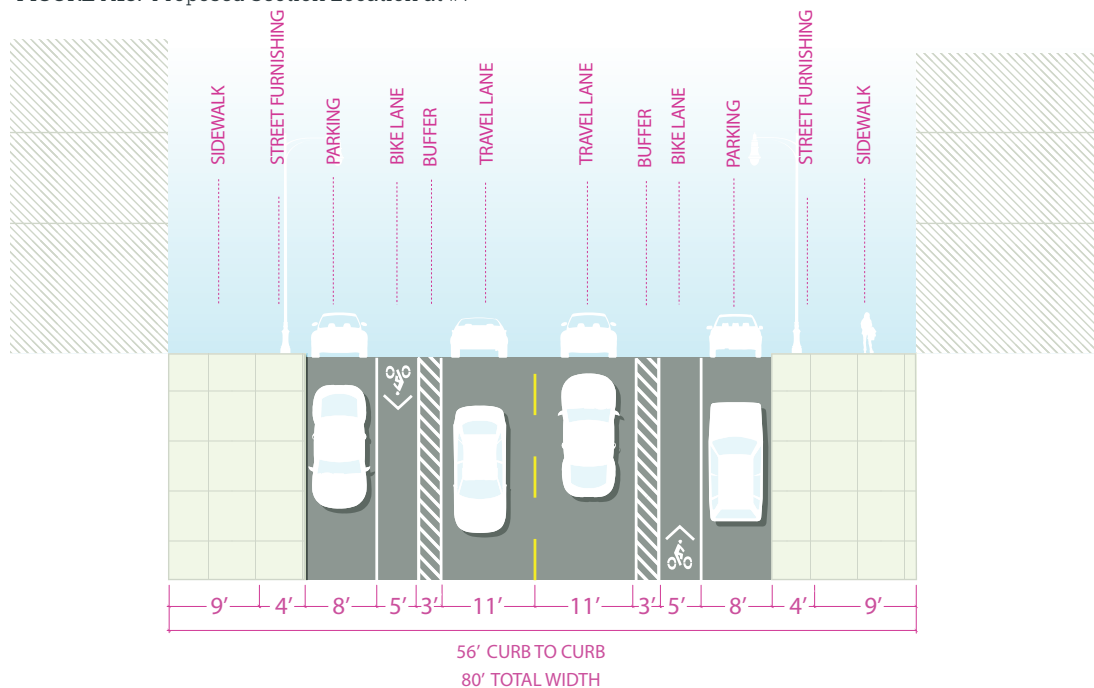
EXISTING on 4th Ave between 5th St and 4th St.

FIGURE A17: Existing Section Location at #7



PROPOSED

FIGURE A18: Proposed Section Location at #7



Proposed Street Network Map

PROPOSED ROLE

Needs revision based on planned reconstruction by City.

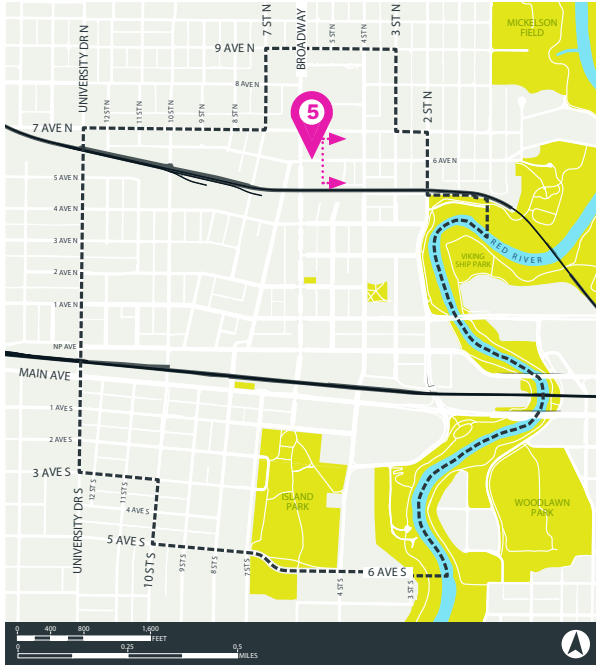
Proposed Section for location 4: No change, maintain existing section.

Proposed Section for location 7: Re-allocate space from the center turn lanes to expand sidewalks and buffered bike lanes.



6th Avenue North

6th Avenue North between 12th Street North and Elm Street North



Existing Section Location

THE BASICS:

Functional Classification: Local

Speed: 25 mph

Number of Lanes: 2 lanes

Curb-to-Curb Width: 34 feet

ROW width (approximate): 68 feet

Public Transit Route: 11

CONSIDERATIONS

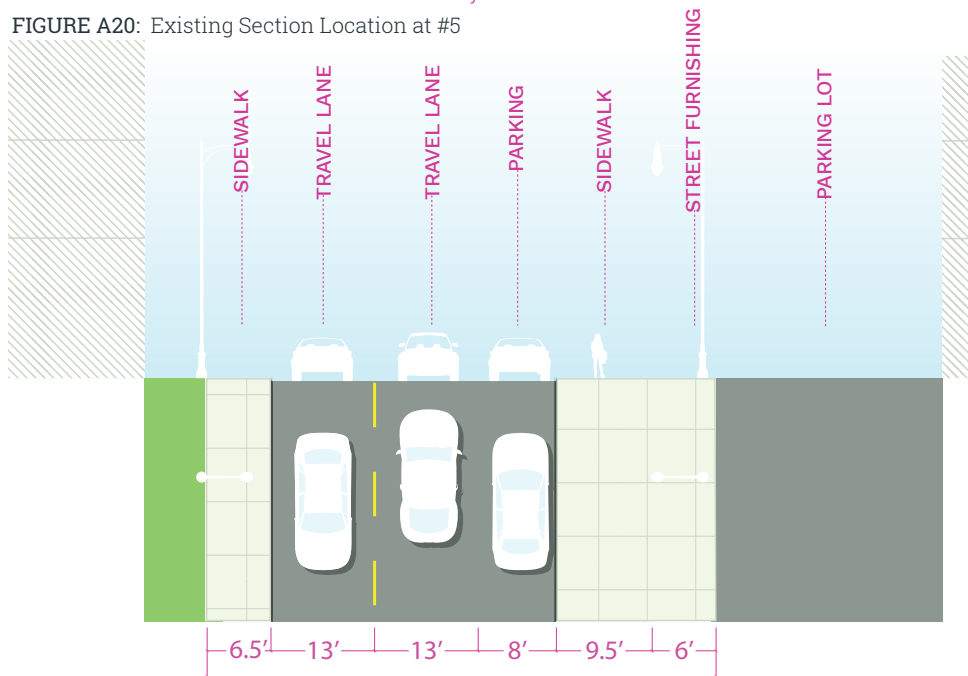
- > 6th Avenue North is a relatively low-traffic street with wide travel lanes (13 feet typical).
- > 6th Avenue North has on-street parking, however a number of large parking lots abut 6th Avenue North.
- > 7th Avenue North plays a more crucial role in street connectivity east-west, but it does not have sufficient width to provide a dedicated facility for cyclists on-street. 6th Avenue runs parallel to 7th Avenue and has greater potential to play a key role in the bike network.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

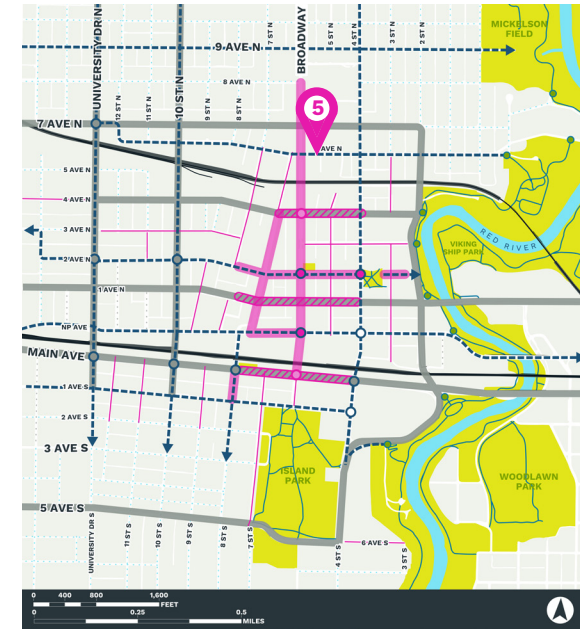
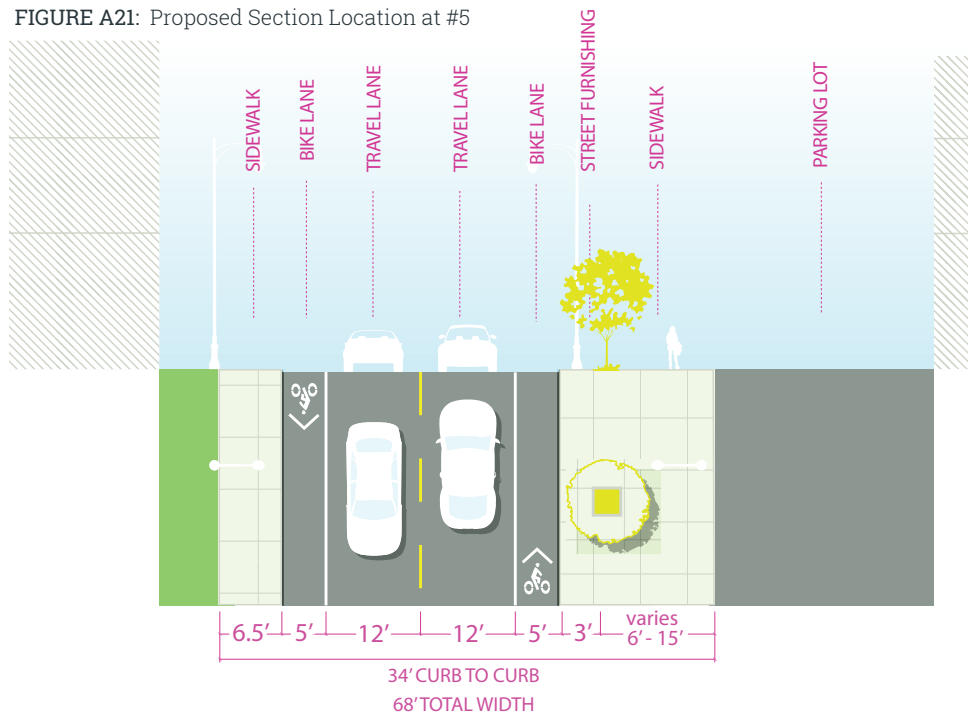
EXISTING on 6th Ave between Broadway and 4th St.

FIGURE A20: Existing Section Location at #5



PROPOSED

FIGURE A21: Proposed Section Location at #5



Proposed Street Network Map

PROPOSED ROLE

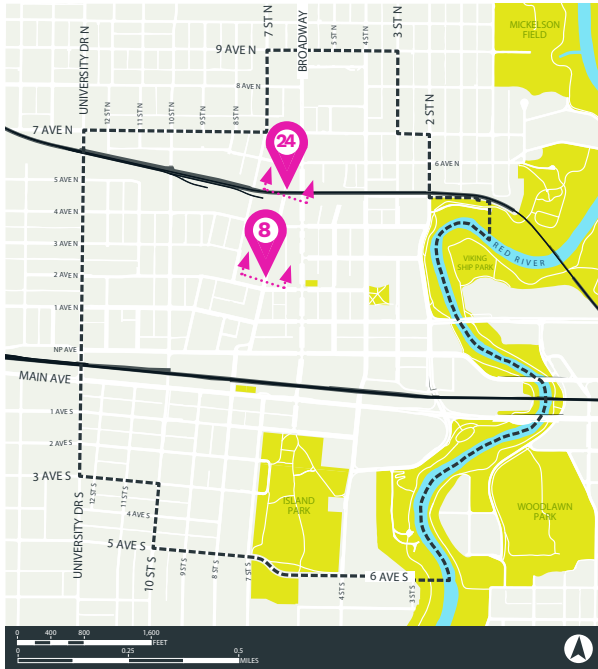
The current on-street parking on 6th Avenue North is not in high demand due to the presence of off-street parking lots serving businesses along the street. Due to its low traffic volumes, 6th Avenue North could provide a low-stress corridor for people biking. There is ample space for bike lanes in both directions once travel lanes are adjusted to standard 12 foot lanes and on-street parking is removed.

Special attention should be given to the potential connection for cyclists from University Drive to 6th Avenue North via 7th Avenue North. It may be necessary to build an off-street bike connection along this constrained block.

Proposed Section: Install dedicated bike lanes on-street in space regained by removing parking lanes.

Roberts Street North

Roberts Street North between 6th Avenue North and Northern Pacific Avenue



Existing Section Location

THE BASICS:

Functional Classification: Collector

Speed: 25 mph

Number of Lanes: 2 Lanes

Curb-to-Curb width: 42 feet

ROW width (approximate): 71 feet

Public Transit Route: N/A

CONSIDERATIONS

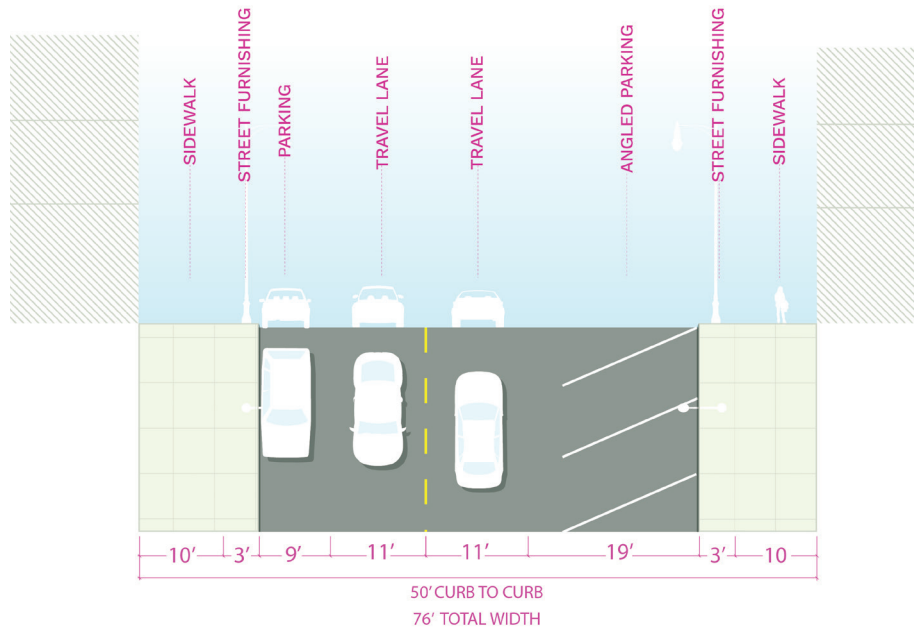
- > Roberts Street North's primary role for vehicles is in providing local circulation to parking and as a redundant route to Broadway Avenue.
- > The width of the street and presence of diagonal parking makes Roberts Street North intimidating for cyclists.
- > Mature trees line Roberts Street North, one of the few tree-lined streets in the downtown study area.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

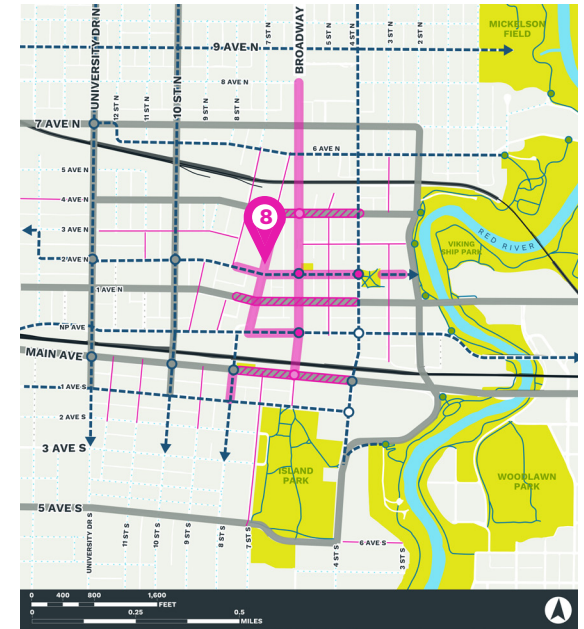
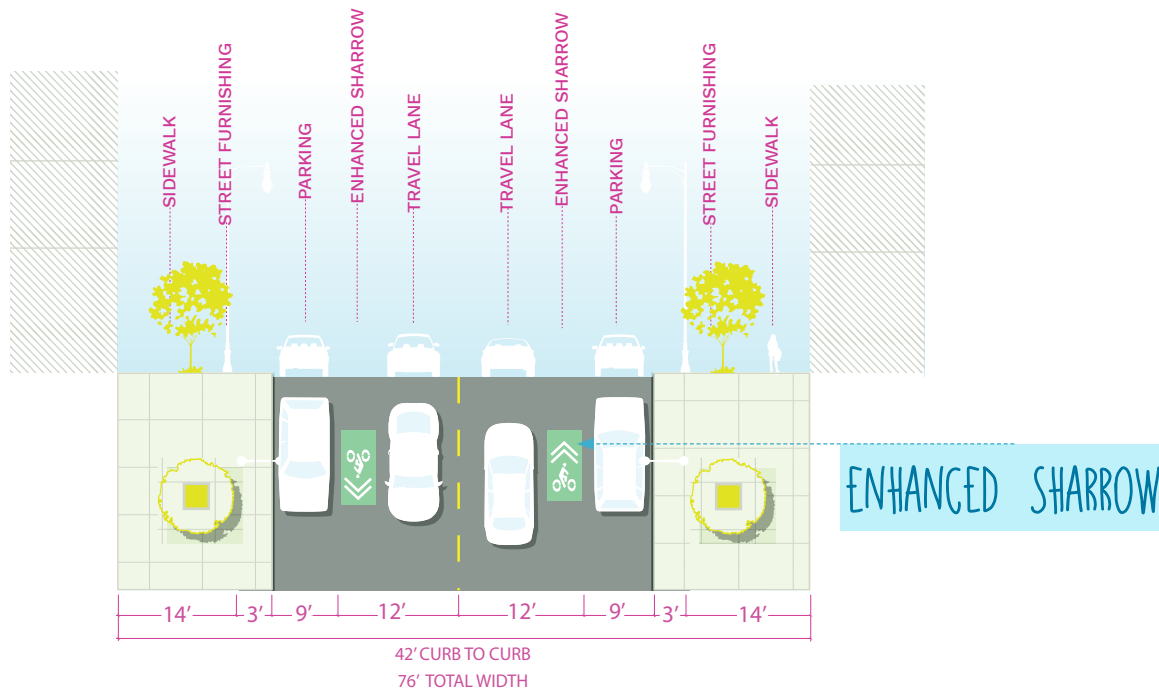
EXISTING on Roberts St. between 4th Ave and 2nd Ave - Looking North

FIGURE A22: Existing Section Location at #8



PROPOSED

FIGURE A23: Proposed Section Location at #8



Proposed Street Network Map

PROPOSED ROLE

The design of Roberts Street North should encourage slow speeds. As one of the few tree-lined streets in the downtown commercial area, Roberts Street North has great potential to support outdoor dining and enhanced pedestrian pathways. Several off-street parking lots and garages exist within a short walk from Roberts Street North. Although it is in the core of downtown, conversion of on-street diagonal parking to parallel could allow for expansion of sidewalks. Conversion to parallel parking also has advantages for cyclists. Although it is not a primary bike route, Roberts Street North has great potential to provide a redundant route to Broadway for cyclists in the heart of downtown.

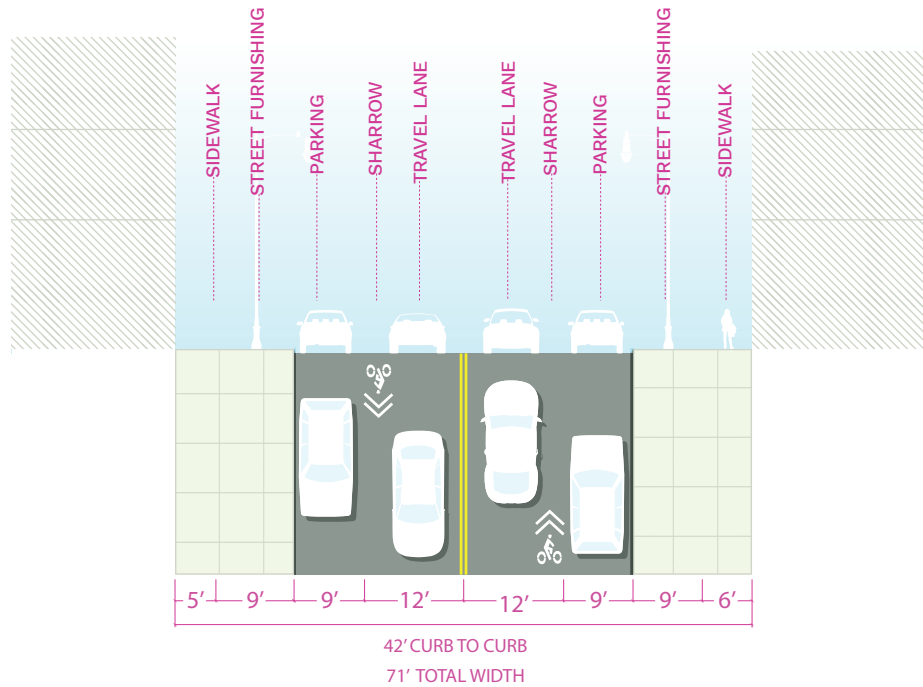
Proposed Section: Cyclists should be comfortable using Roberts Street North with a shared lane marking. Maintain parking along Roberts Street North, but convert to parallel stalls. Expand sidewalks in space gained from parking conversion.



Photo: Existing sharrows and diagonal parking on Roberts Street, between 3rd Ave and 2nd Ave looking South

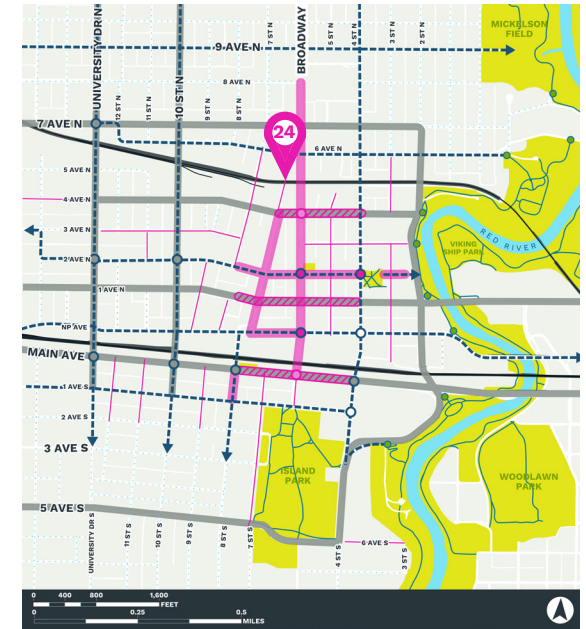
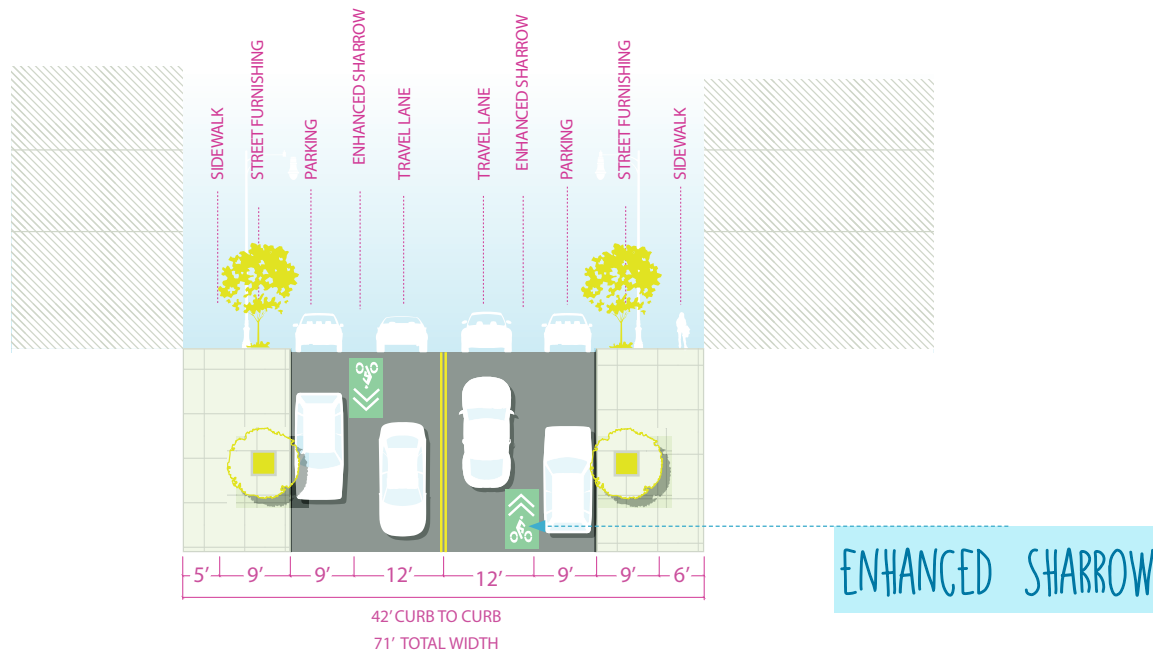
EXISTING on Roberts St. between 6th Ave and 4th Ave - Looking North

FIGURE A24: Existing Section Location at #24



PROPOSED

FIGURE A25: Proposed Section Location at #24



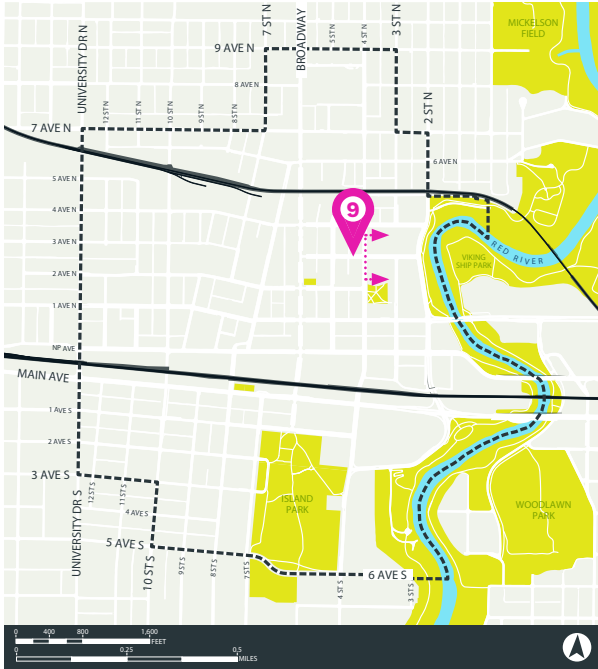
Proposed Street Network Map

Proposed Section: Further North on Roberts, existing sharrow markings should be enhanced for greater visibility and consistency.



3rd Avenue North

3rd Avenue North between Broadway Avenue and 2nd Street North



Existing Section Location

THE BASICS:

Functional Classification: Collector

Speed: 25 mph

Number of lanes: 2 Lanes

Curb-to-Curb width: 42 feet

ROW width (approximate): 71 feet

Public Transit Route: N/A

CONSIDERATIONS

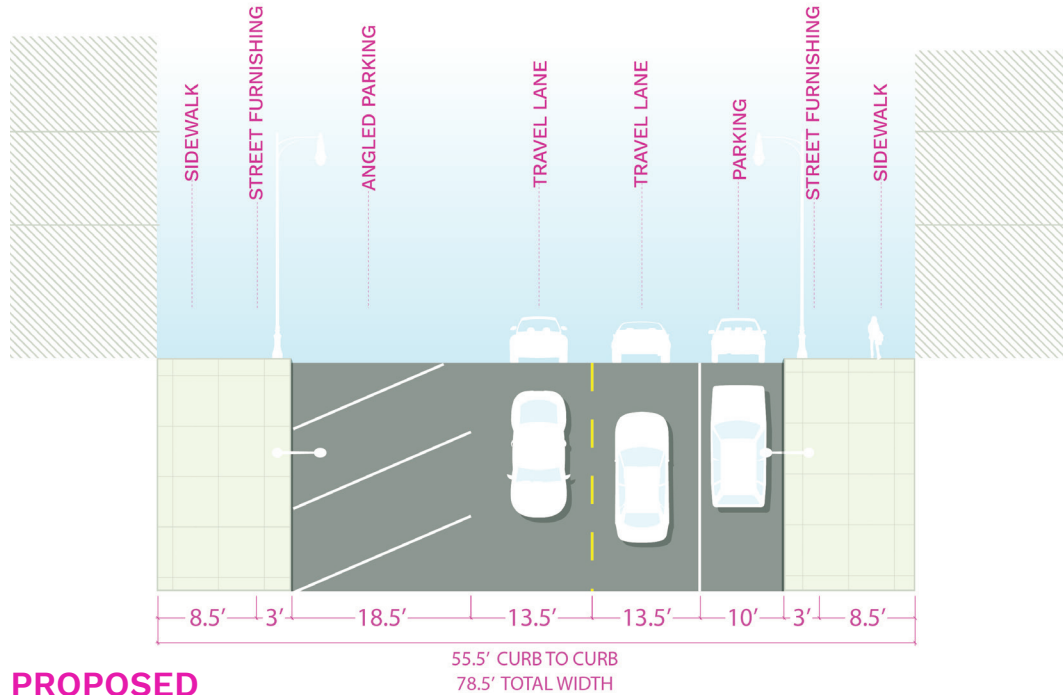
- > 3rd Avenue North is in a high-demand parking area for adjacent retail blocks. There will be continued demand for both parking and an enhanced pedestrian environment along this street in the future.
- > 3rd Avenue North is a short segment that does not provide crucial connections within the street network for vehicles or bicycles.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

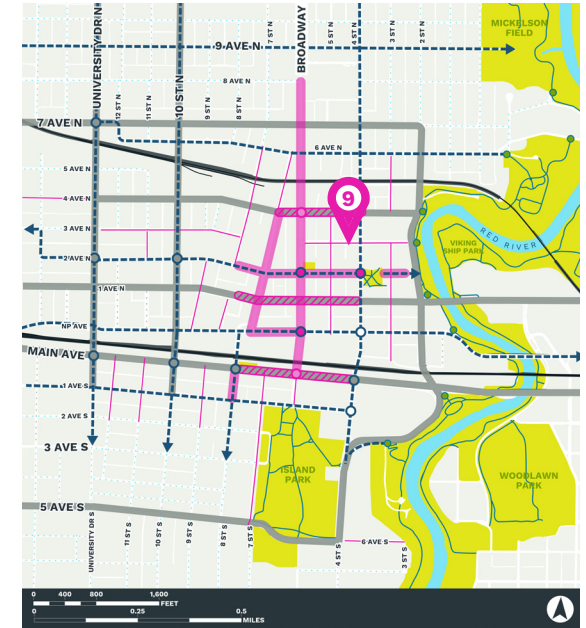
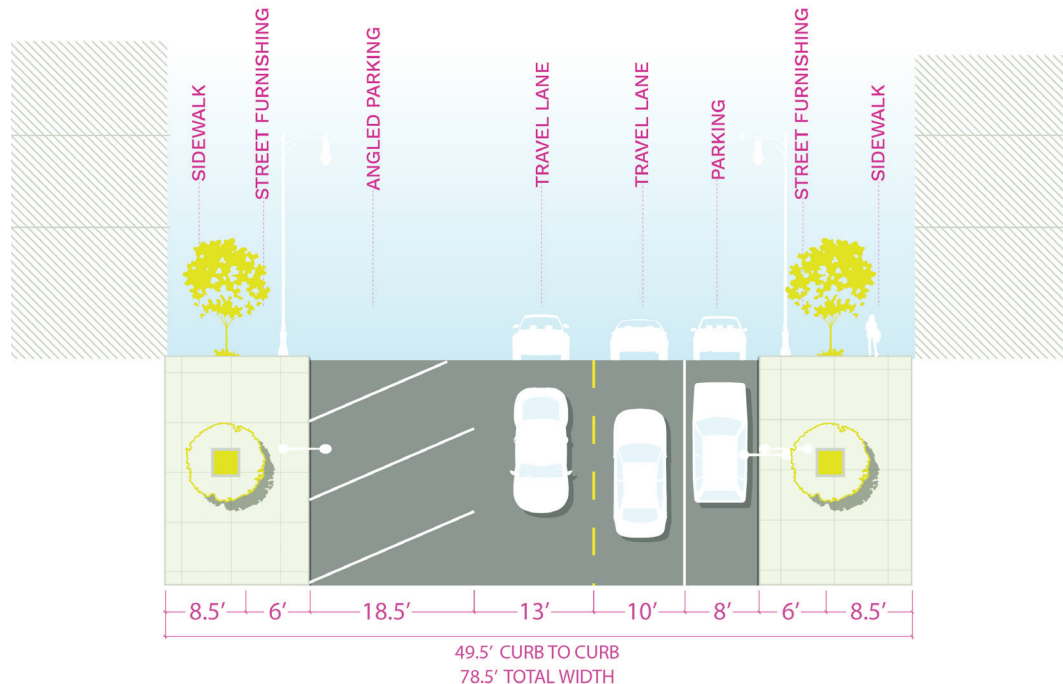
EXISTING on 3rd Ave between Broadway and 4th St.

FIGURE A26: Existing Section Location at #9



PROPOSED

FIGURE A27: Proposed Section Location at #9



Proposed Street Network Map

PROPOSED ROLE

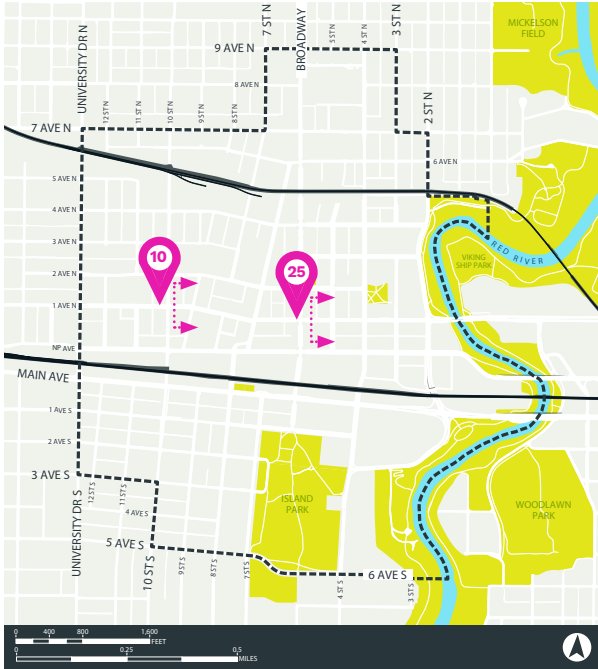
3rd Avenue will continue to play a key role in providing parking space for downtown businesses. It provides important connectivity to pedestrians, but will not play a major role in vehicular circulation in the downtown street network.

Proposed Section: Maintain parking capacity on-street in both parallel and diagonal spaces. Minimize through-lane and parking lane width to regain space for sidewalk expansion. **Narrow lanes** will slow vehicle speeds and improve safety at crossings.



2nd Avenue North

2nd Avenue North between University Drive and 2nd Street North



Existing Section Location

THE BASICS:

SECTION EAST OF 7TH STREET NORTH

Functional Classification: Collector

Speed: 25 mph

Number of Lanes: 2 Lanes

Curb-to-Curb width: 54 feet

ROW width (approximate): 75 feet

Public Transit Route: 13, 17

SECTION WEST OF 7TH STREET NORTH

Functional Classification: Collector

Speed: 25 mph

Number of Lanes: 2 Lanes

Curb-to-Curb width: 35 feet

ROW width (approximate): 75' feet

Public Transit Route: 13, 17

CONSIDERATIONS

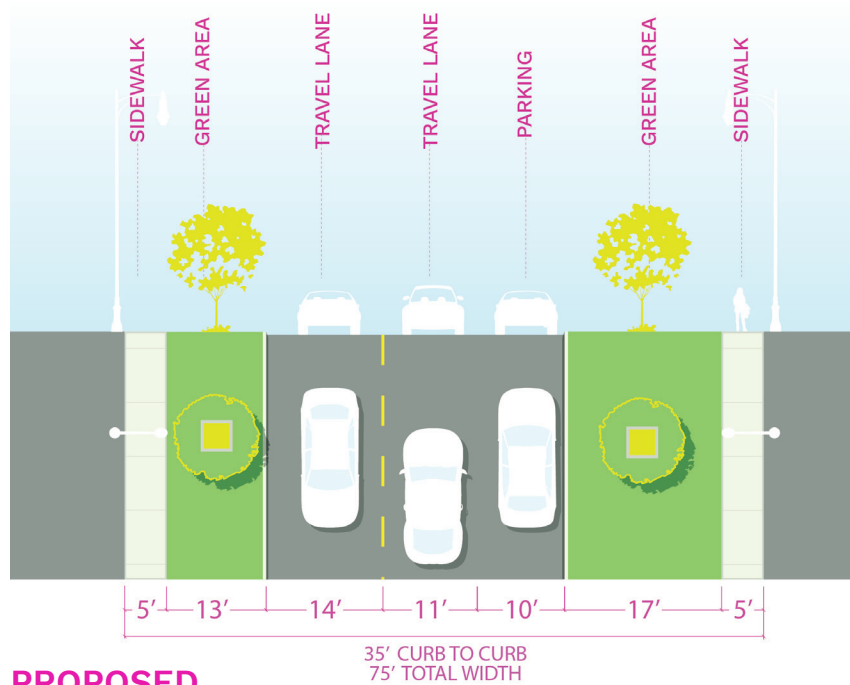
- > 2nd Avenue North connects many key pedestrian generators and destinations in the heart of downtown. Between University Drive and the Red River, NDSU Campus buildings, the Post Office, Block 9 Plaza, and City Hall front 2nd Avenue North. This makes 2nd Avenue North a critical pathway for pedestrian enhancements and bike access.
- > 2nd Avenue North provides a central trunkline from University Drive and 10th Street North couplet bikeways into the heart of downtown. Direct connection to convenience and recreational destinations and minimal diagonal parking make 2nd Avenue North a prime candidate for an all-ages bike connection.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

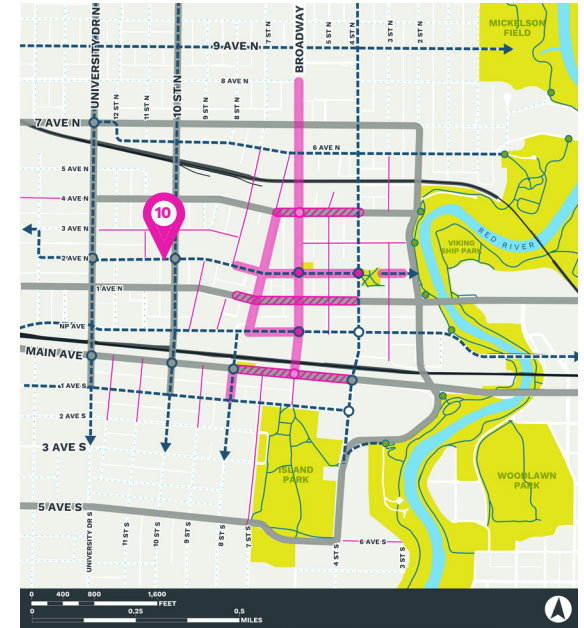
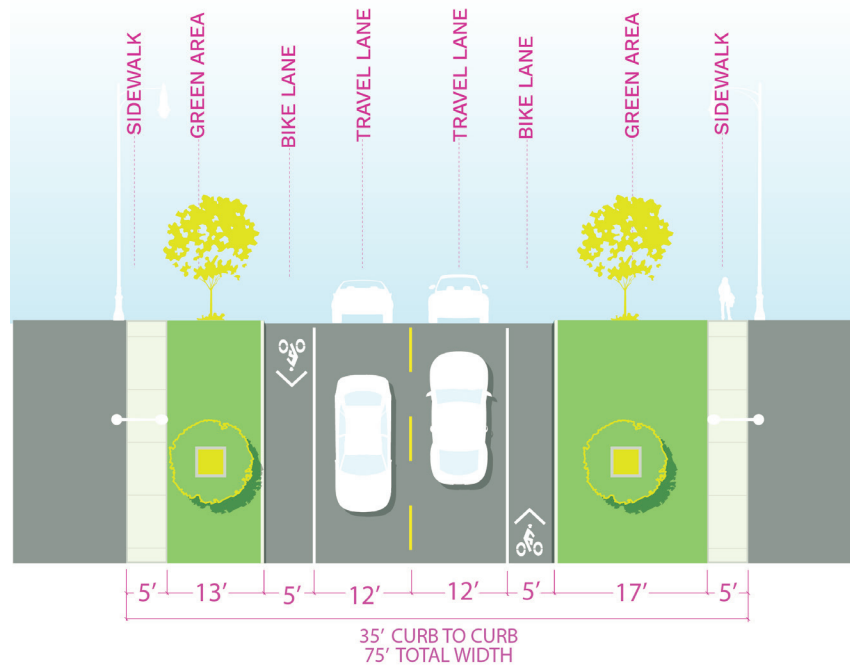
EXISTING on 2nd Ave between 11th St. and 10th St.

FIGURE A28: Existing Section Location at #10



PROPOSED

FIGURE A29: Proposed Section Location at #10



Proposed Street Network Map

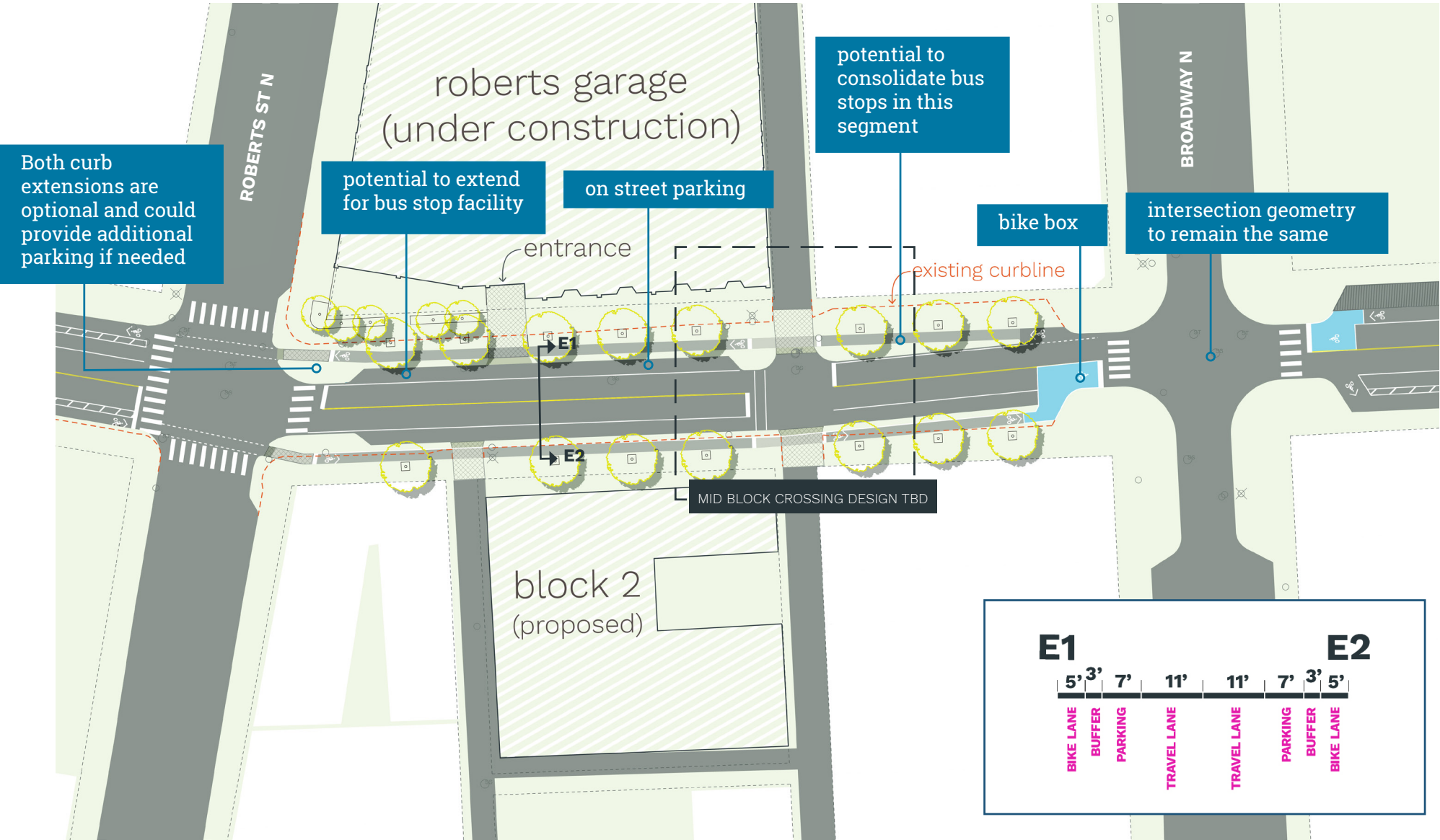
PROPOSED ROLE

2nd Avenue North, west of 7th Street North plays a crucial role in connecting 10th Street North and University Drive couplet bike facilities into the heart of downtown.

Proposed Section: On-street parking lane is replaced by on-street bike lanes in both directions.

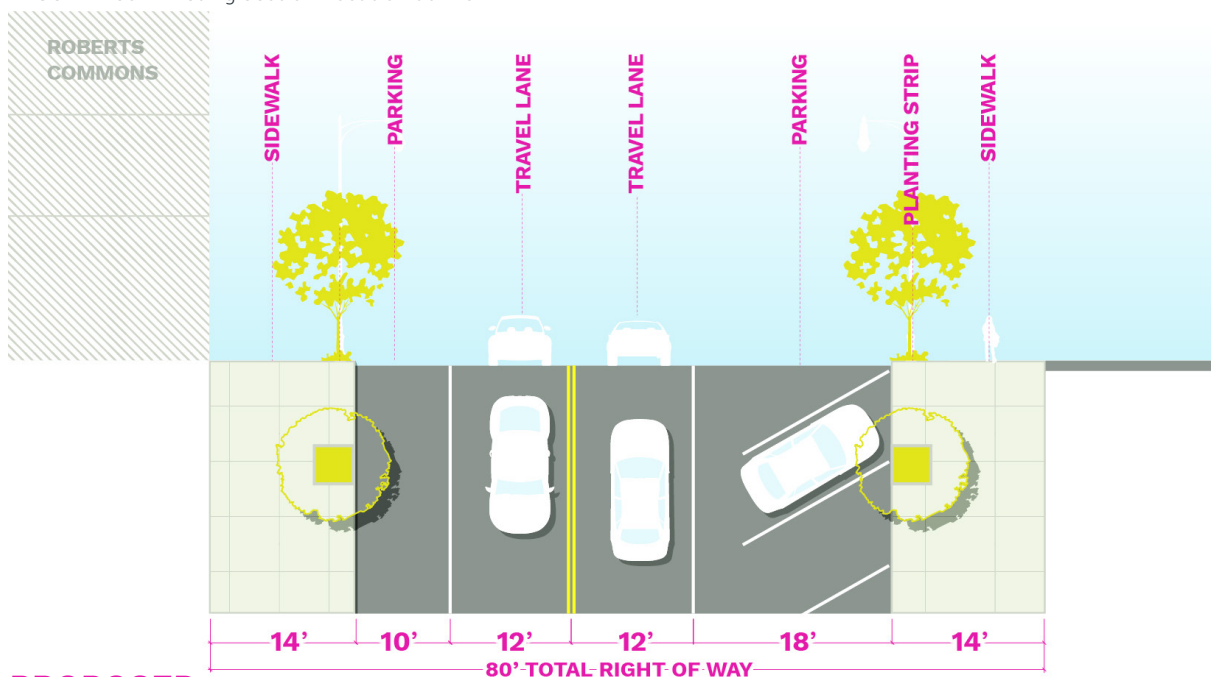
PROPOSED STREET RECONSTRUCTION FOR THE ROBERTS COMMONS BLOCK

In this site plan the bikelane facilities are placed adjacent to the sidewalk on both sides of the street. As shown here, it is preferred that the bike lane is raised at grade with the sidewalk. However, it is possible to execute this design with the bikelane at grade with the street (See Appendix 2). Integrating the bikelane into the bumpout at the intersection of Roberts and 2nd is optional, as mirrored in the 2nd & Broadway intersection.



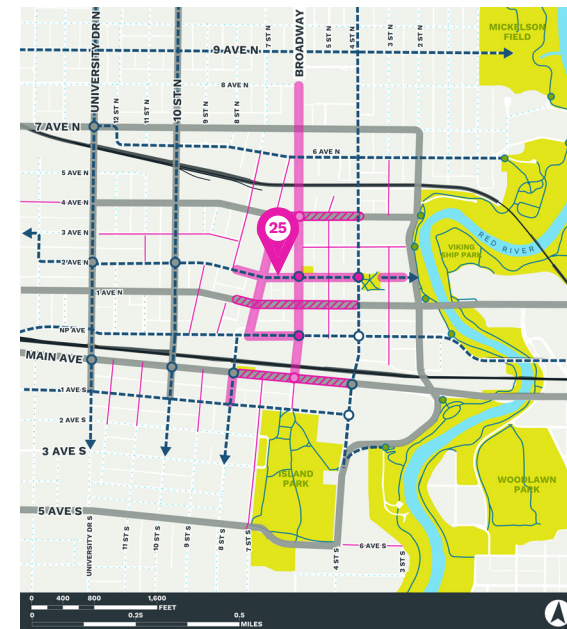
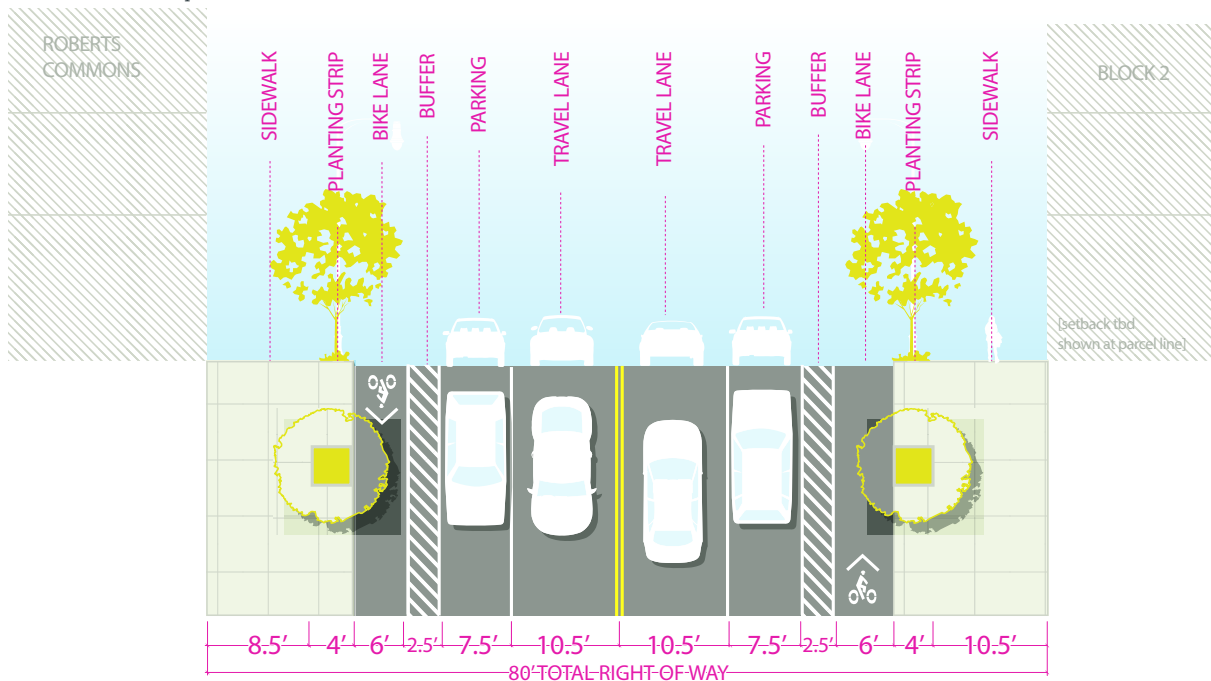
EXISTING on 2nd Ave between Roberts and Broadway

FIGURE A30: Existing Section Location at #25



PROPOSED

FIGURE A31: Proposed Section Location at #25



Proposed Street Network Map

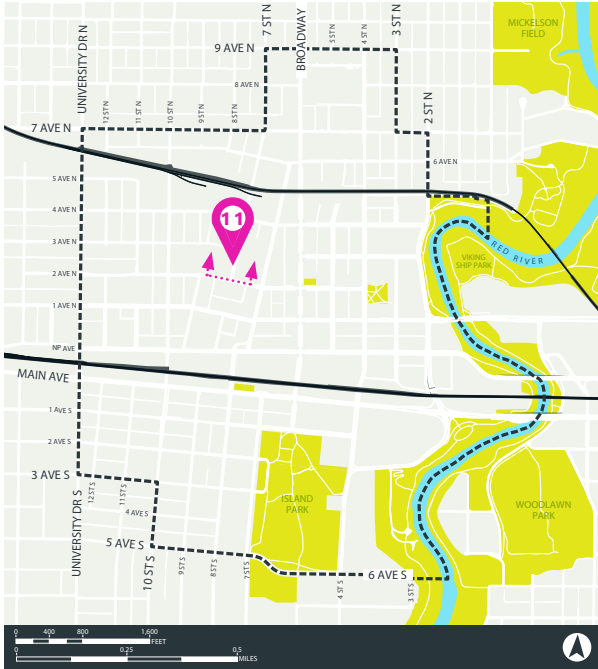
PROPOSED ROLE

Design recommendation, east of 7th Street North it is a critical east-west corridor that connects NDSU facilities with City Hall, the Library and River. For these reasons it's a great street for bikes. The opportunity is to make this a bike-friendly street and improve pedestrian safety – create safe bike lanes, wider sidewalks and more greening.

Proposed Section: This section depicts the potential 2nd Avenue, with narrower travel lanes, parallel parking, wider sidewalks, and a raised, buffered, bike lane. Please refer to Appendix 2, for more detailed 2nd Avenue context planning.

7th Street North

7th Street North between 4th Avenue North and 2nd Avenue North



Existing Section Location

THE BASICS:

Functional Classification: Collector

Speed: 25 mph

Number of Lanes: 2 Lanes

Curb-to-Curb Width: 45 feet

ROW Width (approximate): 71 feet

Public Transit Route: N/A

CONSIDERATIONS

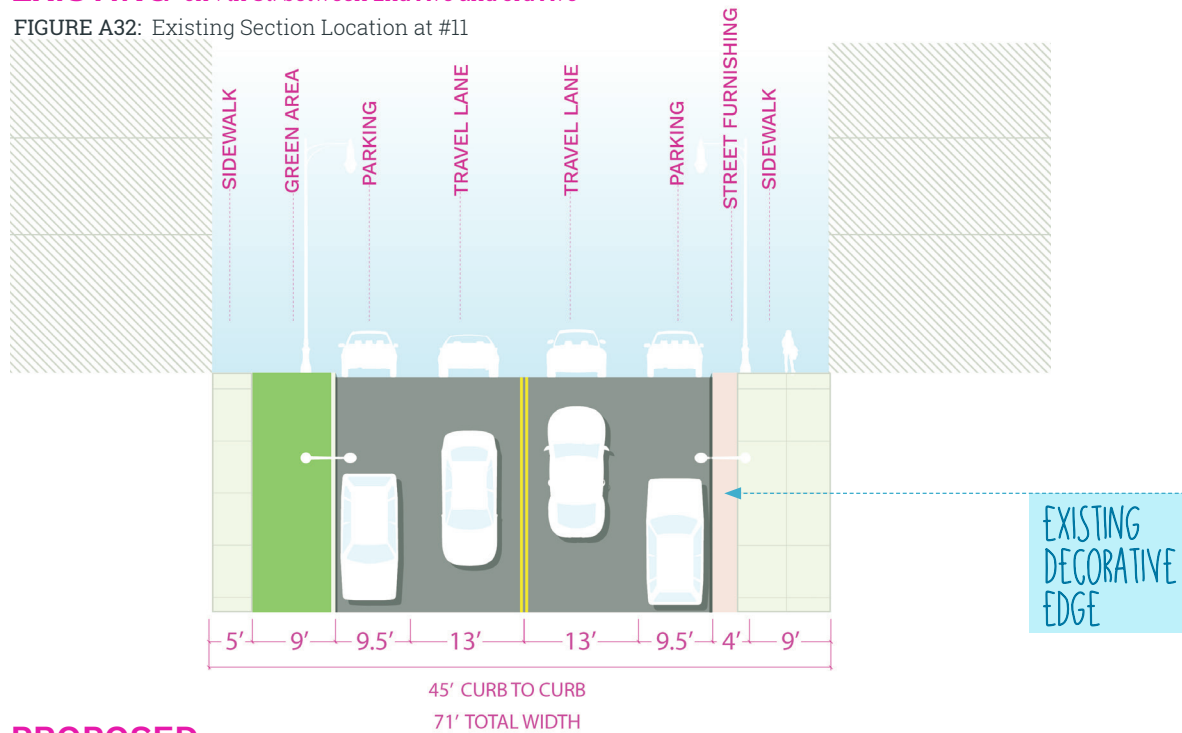
- > 7th Street North is a short segment, and provides little connectivity in the local street network.
- > 7th Street has a very wide curb-to-curb width, relative to the number of vehicles traveling along it.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

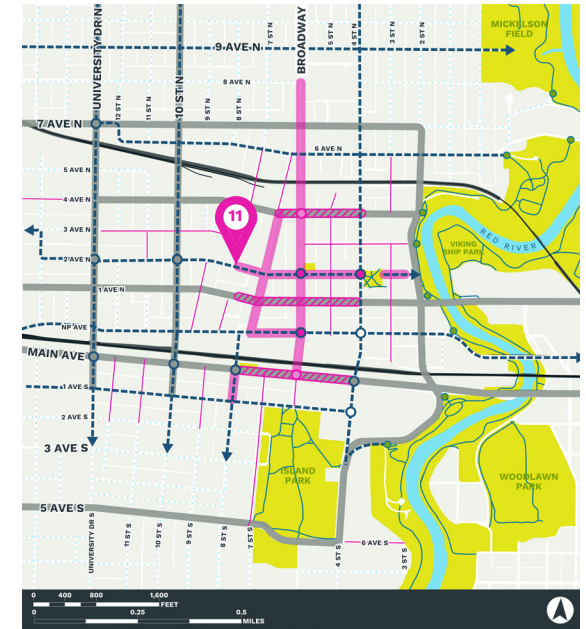
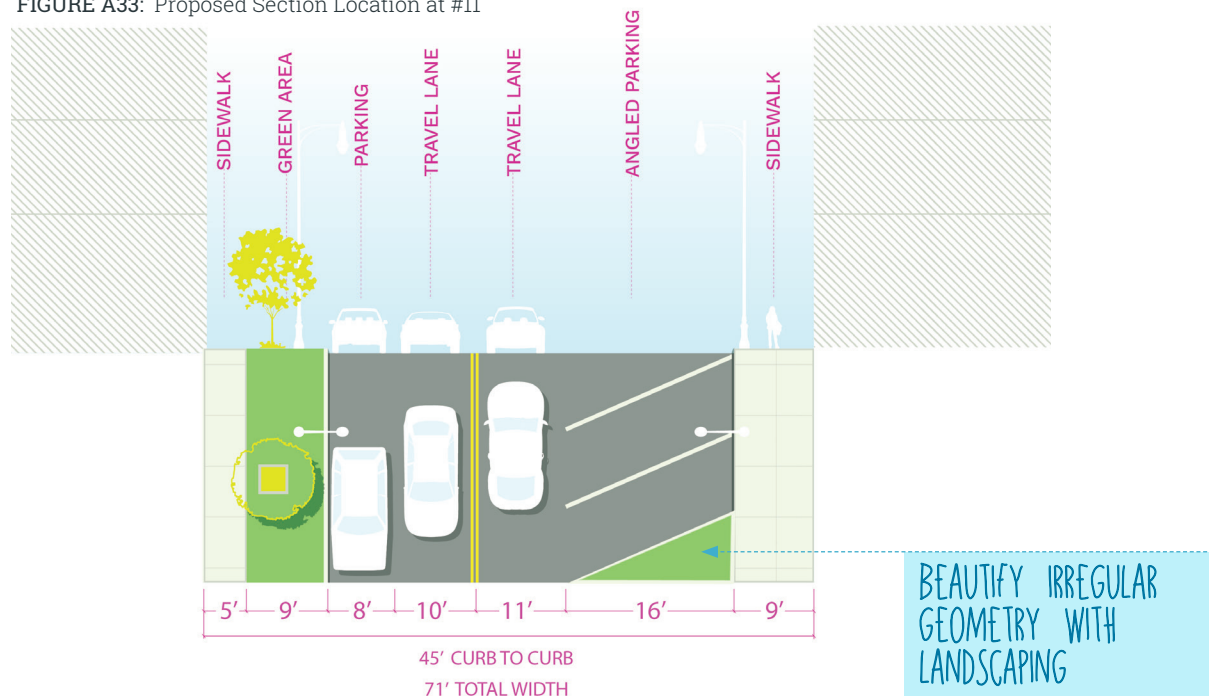
EXISTING on 7th St. between 2nd Ave and 3rd Ave

FIGURE A32: Existing Section Location at #11



PROPOSED

FIGURE A33: Proposed Section Location at #11



Proposed Street Network Map

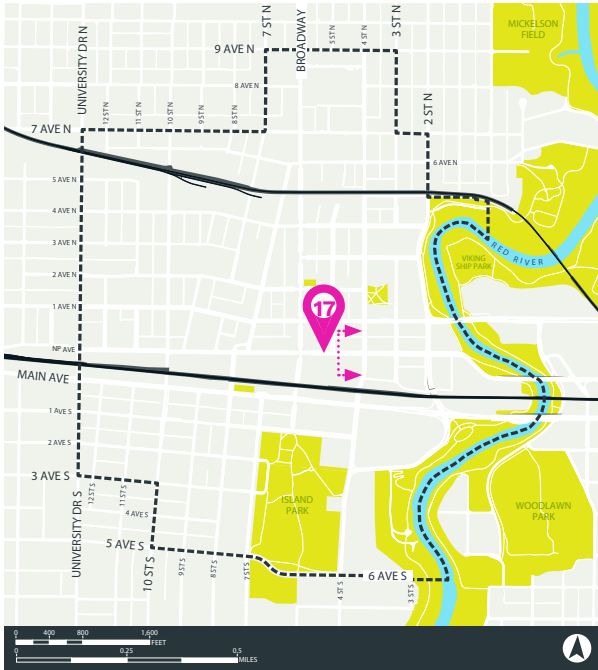
PROPOSED ROLE

Increase parking capacity along this side street by installing diagonal parking. This will help to offset parking lost in the 2nd Avenue North proposed design, which converts on-street diagonal parking in front of Post Office to parallel. Utilize irregular space at block-ends for landscape.

Proposed Section: Convert east side of 7th Street North to diagonal parking.

Northern Pacific Avenue

Northern Pacific Avenue between 10th Street North and Red River



Existing Section Location

THE BASICS:

Functional Classification: Minor Arterial

Speed: 25 mph

Number of lanes: 3 lanes (varies from 2-4 within study area)

Curb-to-Curb width: 55 feet

ROW width (approximate): 80 feet

Public Transit Route: 13, 14, 15, 18, Link FM

CONSIDERATIONS

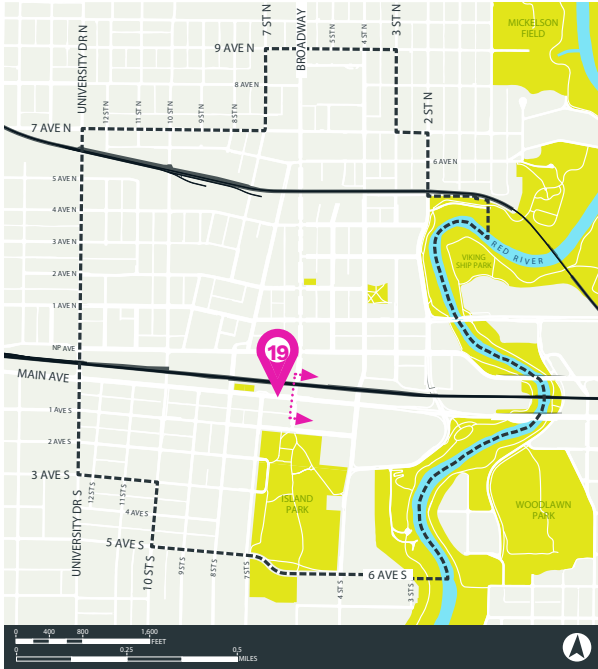
- > Northern Pacific Avenue provides a direct connection to the Ground Transportation Center, and carries many bus routes through the downtown study area.
- > Northern Pacific Avenue provides a bridge connection to Moorhead. Of the three streets which provide connections to Moorhead, connectivity is more limited east-west along Northern Pacific as it does not continue west of University Drive, whereas both Main Avenue (US-10) and 1st Avenue North continue to meet Highway 81 to the west.
- > Northern Pacific Avenue has two lanes running eastbound and a single lane westbound. It is designed to act as a pair with 1st Avenue North within the current street network.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

Main Avenue (US-10)

Main Avenue (US-10) between University Drive and 4th Street South



Existing Section Location

THE BASICS:

Functional Classification: Primary Arterial

Speed: 30 mph

Number of Lanes: 5 Lanes (varies from 2-5 within study area)

Curb-to-Curb Width: 56 feet

ROW Width (approximate): 73 feet

Public Transit Route: N/A

CONSIDERATIONS

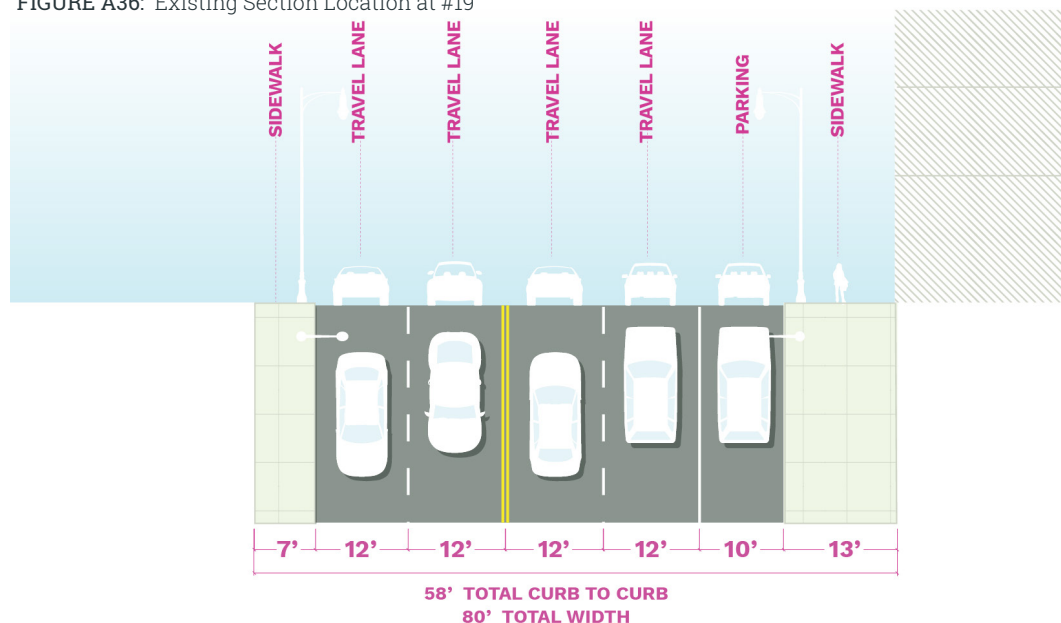
- > Main Avenue (US-10) plays a critical role in carrying commuter flows into and out of downtown daily. It is a central vehicular corridor which spans the downtown area and provides connections into the larger highway network (Highway 81), West Fargo and Moorhead.
- > Main Avenue (US-10) is the widest street crossing the downtown area. Higher speeds, 5-6 vehicle lanes, and high traffic volumes make crossings treacherous for pedestrians.
- > Several retail blocks from Main Avenue (US-10) from the south side, and connect to retail along 8th Street South and Broadway Avenue.

Capacity Analysis:

- > Analysis indicates the street is under capacity. However, analysis shows that lane reduction along the central segment of Main Avenue (US-10) would slow traffic through downtown.
- > East of 4th Street South, lane reduction would be impossible without reconfiguration of 2nd Street North intersection.

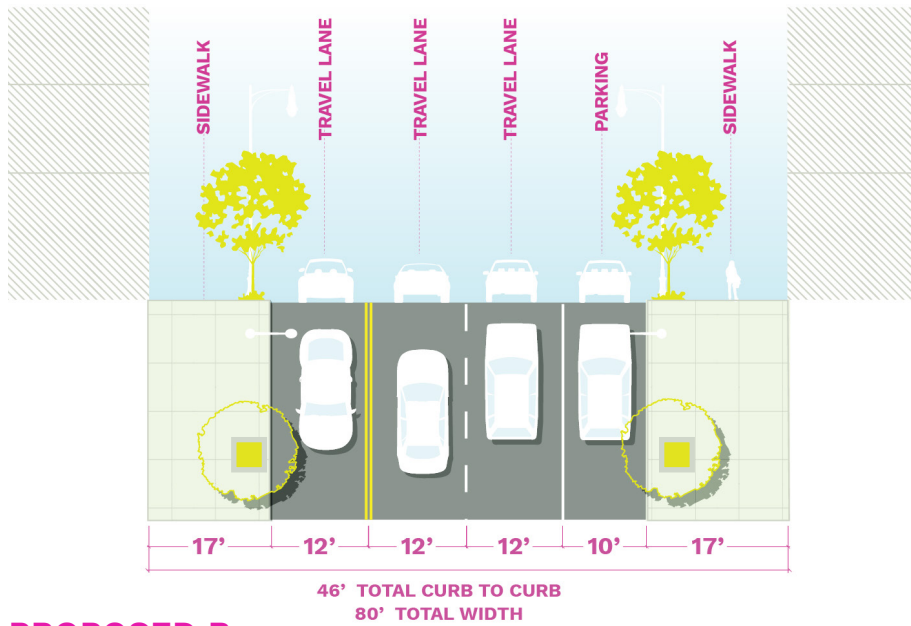
EXISTING on Main Ave between 8th St. and Broadway

FIGURE A36: Existing Section Location at #19



PROPOSED A

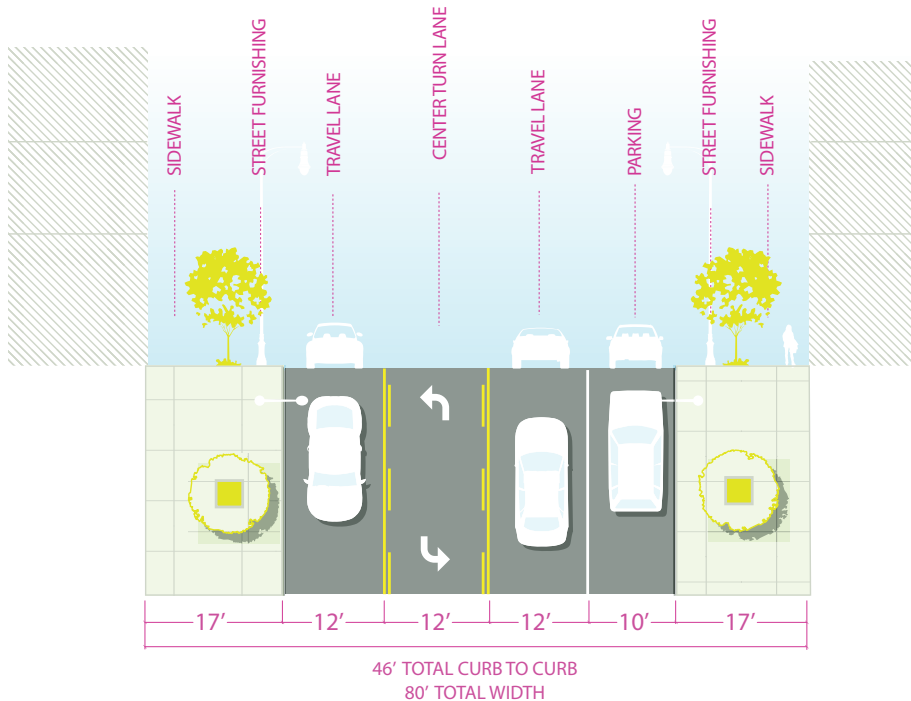
FIGURE A37: Proposed Section Location at #19



Proposed Section: Remove a westbound travel lane and utilize the extra street width as additional sidewalk space. Currently, there are more retail establishments on the south side of Main Ave. The proposed section in Figure A37 shows expanding the sidewalks so they are at equal widths on both sides of the street, as per current reconstruction standards. The City should consider favoring the south side of the street when it comes to reconstruction by allocating additional sidewalk space to the south side (ie. the north side 14', the south side 20') to maximize potential sidewalk activity and outdoor dining along this corridor.

PROPOSED B

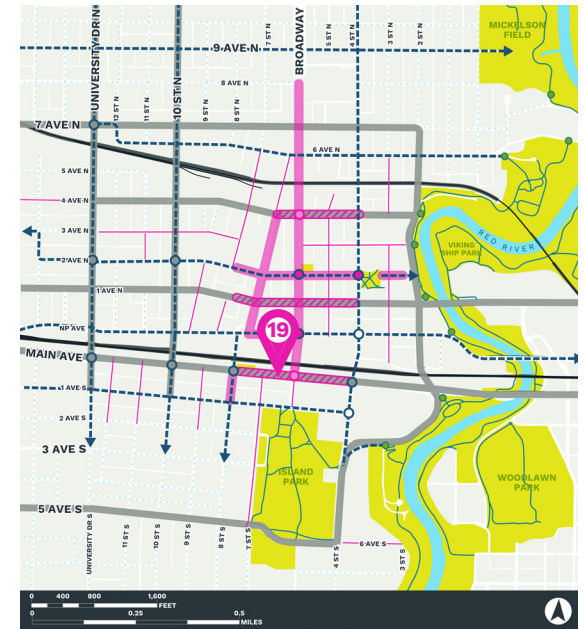
FIGURE A38: Proposed Section Location at #19



Proposed Section: Remove a westbound travel lane and utilize the extra street width as additional sidewalk space. Convert an eastbound travel lane to a center turn lane. Currently, there are more retail establishments on the south side of Main Ave. The proposed section in Figure A38 shows expanding the sidewalks so they are at equal widths on both sides of the street, as per current reconstruction standards. To balance the network, 1st Avenue North should maintain a similar section.

PROPOSED ROLE

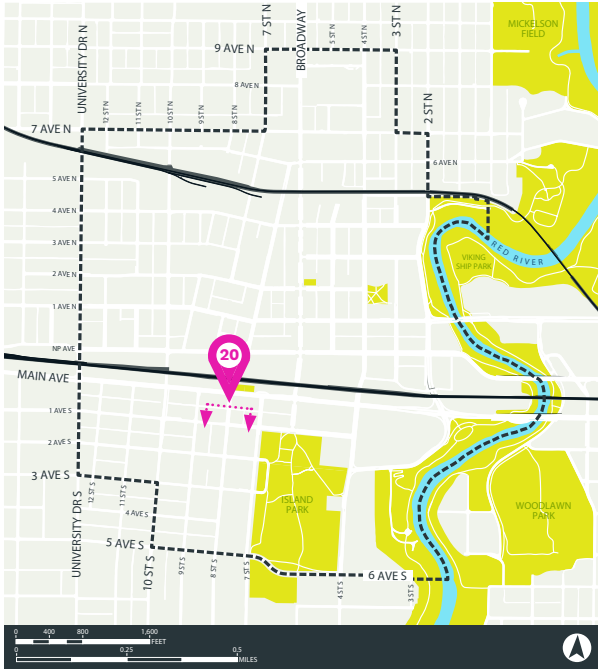
Main Avenue (US-10) will continue to play a key role in the regional movement of commuters into and out of downtown. Along the segment of Main Avenue through the downtown area, the design of Main Avenue must better support its function in the local retail district. The design of Main Avenue through downtown should slow traffic to improve safety at crossings for pedestrians and create a more enjoyable environment along the blocks with retail frontage.



Proposed Street Network Map

8th Street South

8th Street South between Main Avenue (US-10) and 1st Avenue South



Existing Section Location

THE BASICS:

Functional Classification: Local

Speed: 25 mph

Number of lanes: 2 lanes

Curb-to-Curb width: 50 feet

ROW width (approximate): 76' feet

Public Transit Route: N/A

CONSIDERATIONS

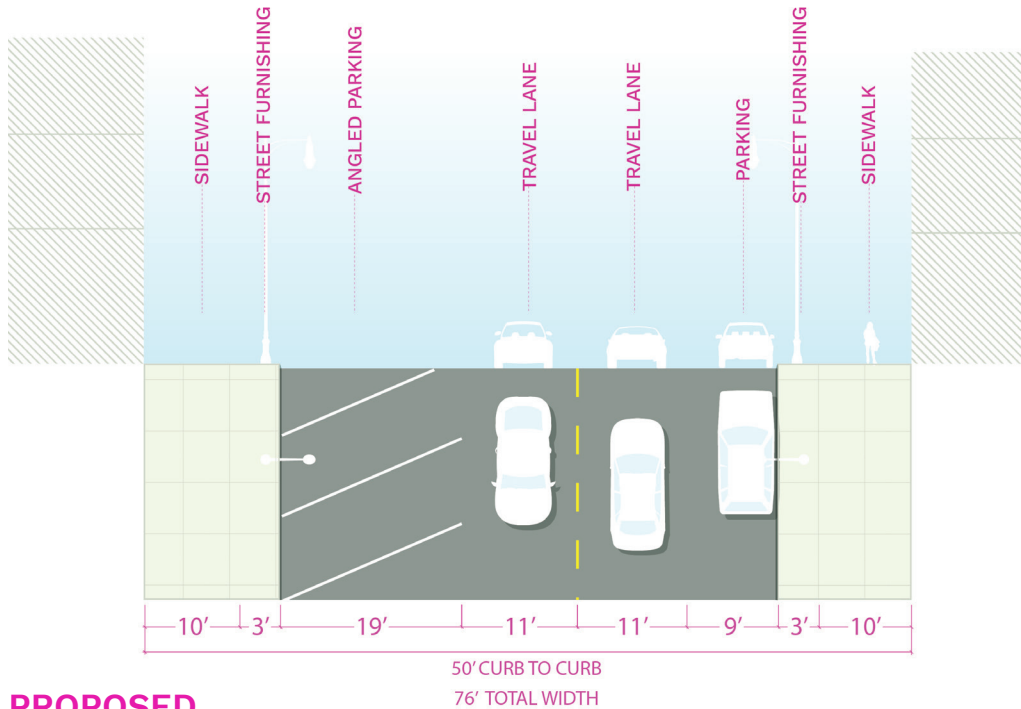
> 8th Street South is a short retail segment with on-street diagonal parking.

Capacity Analysis:

> Analysis indicates the street is under capacity.

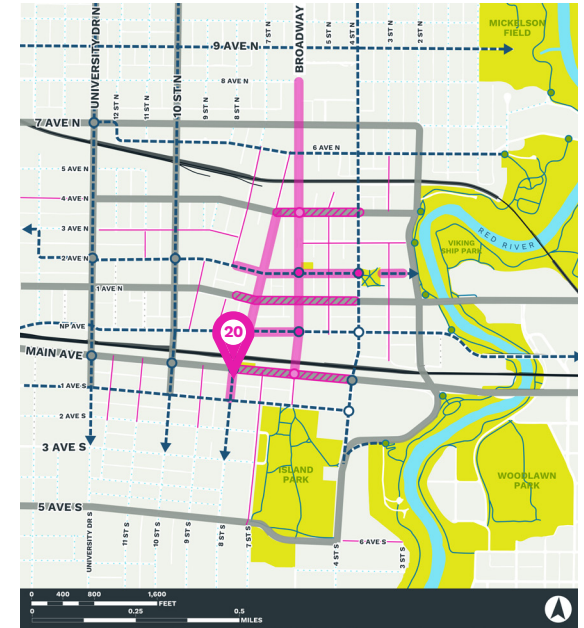
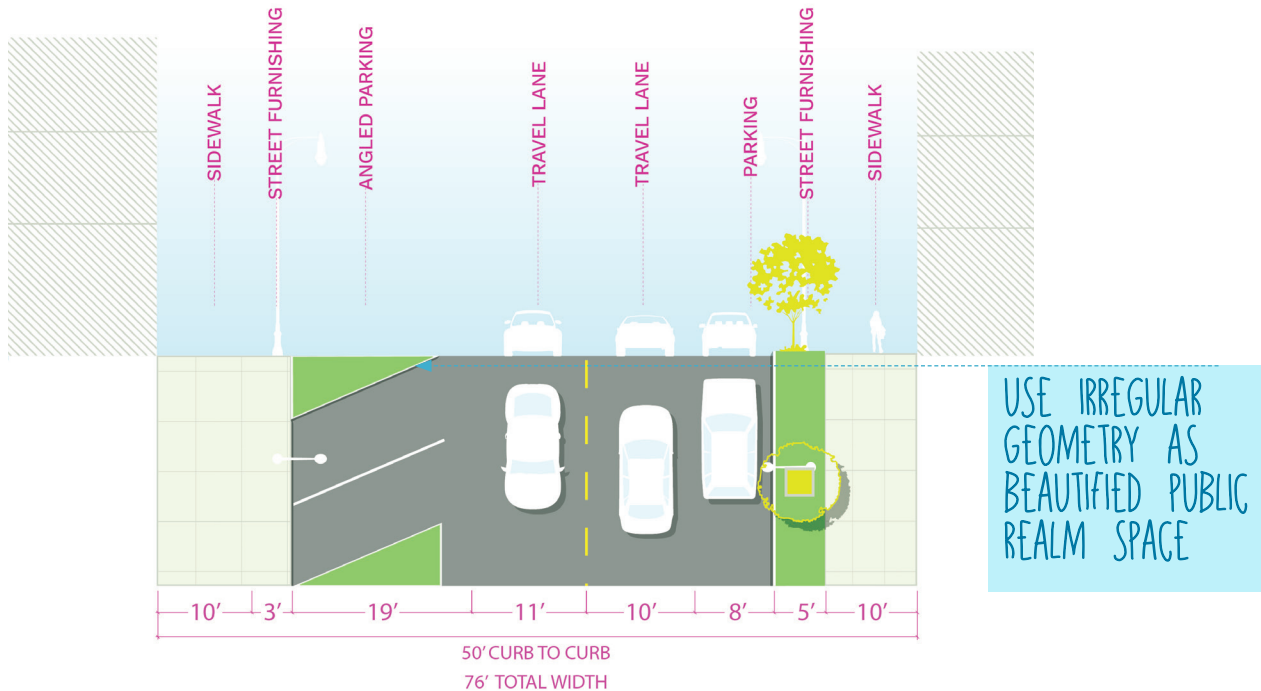
EXISTING on 8th St. between Main Ave and 1st Ave S.

FIGURE A39: Existing Section Location at #20



PROPOSED

FIGURE A40: Proposed Section Location at #20



Proposed Street Network Map

PROPOSED ROLE

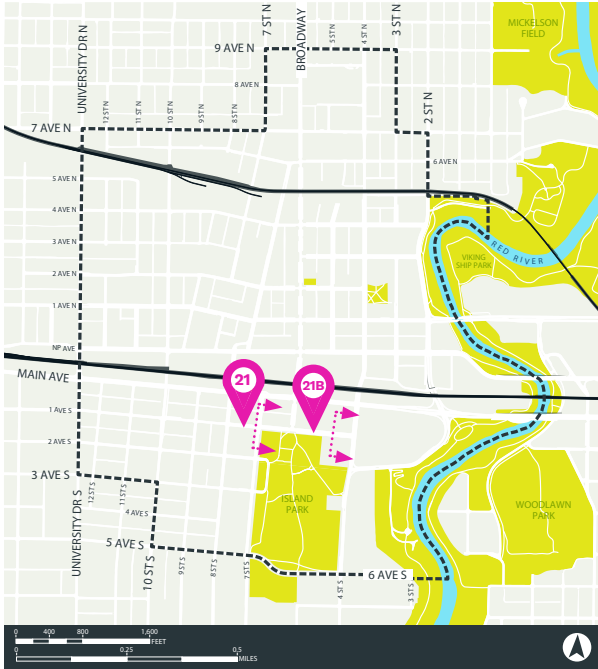
In the future, the role of 8th Street South as a small neighborhood commercial segment will remain the same. Along this low volume street there is an opportunity to better utilize sidewalk and parking space for outdoor dining and public space. To further accommodate this usage, vehicles should slow along this block.

Proposed Section:

Consider narrowing of the northbound travel and parking lanes to create additional space for the addition of green space. Use irregular geometry as public realm space within angled parking lane to provide additional shade and signal to drivers the transition to residential context.

1st Avenue South

1st Avenue South between 8th Street and 4th Street South



Existing Section Location

THE BASICS:

Functional Classification: Local

Speed: 25 mph

Number of Lanes: 2 Lanes

Curb-to-Curb width: 42 feet

ROW width (approximate): 73 feet

Public Transit Route: N/A

1ST AVENUE SECTION EAST OF BROADWAY

Functional Classification: Local

Speed: 25 mph

Number of Lanes: 2 Lanes

Curb-to-Curb width: 59 feet

ROW width (approximate): 80' feet

Public Transit Route: N/A

CONSIDERATIONS

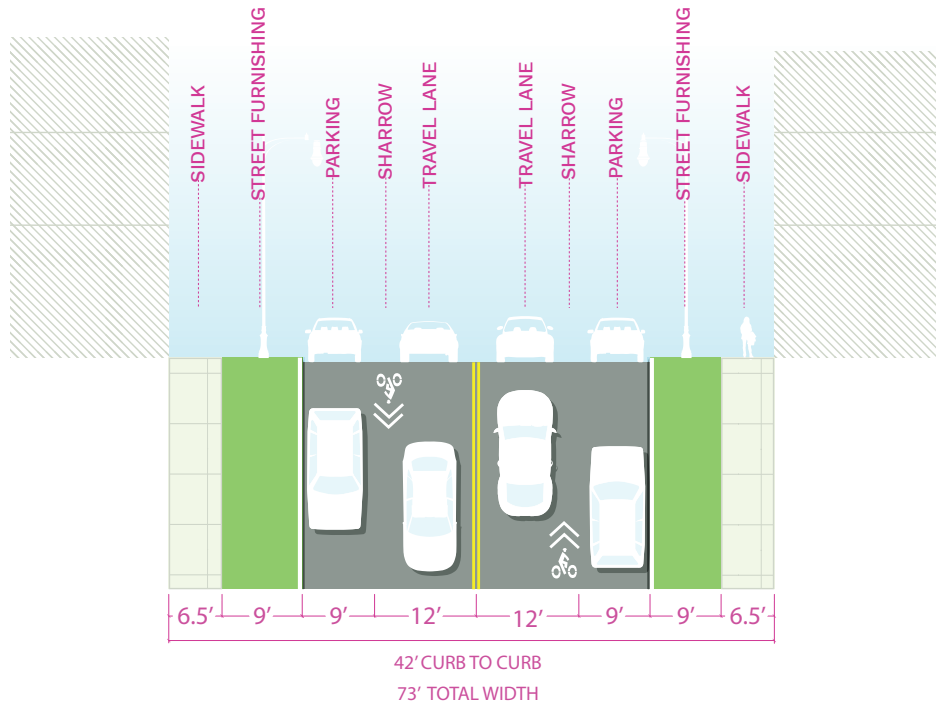
- > There is a lack of bike facilities south of Main Avenue (US-10).
- > 1st Avenue South connects with Island Park, the YMCA of Cass and Clay Counties, and intersects with neighborhood retail along 8th Street South.
- > 1st Avenue South is one of the few streets in Fargo with a bike lane west of University Drive. The existing bike facility ends at University Drive.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

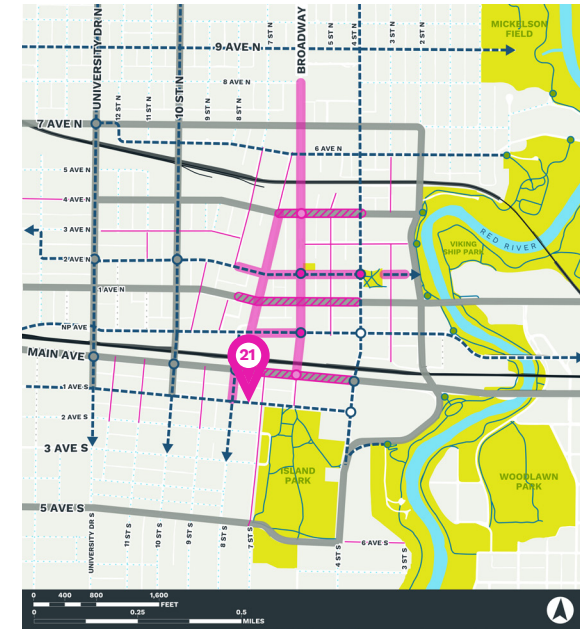
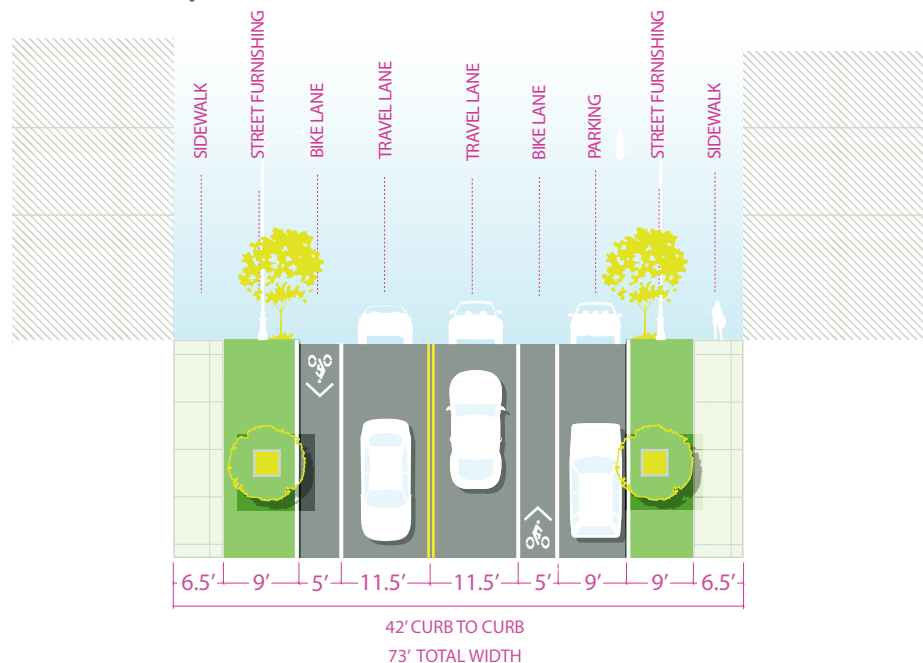
EXISTING on 1st Ave between 8th St and 7th St.

FIGURE A41: Existing Section Location at #21a



PROPOSED

FIGURE A42: Proposed Section Location at #21a



Proposed Street Network Map

PROPOSED ROLE

1st Avenue will act as the main east-west segment of Fargo's bike network south of Main Avenue (US-10). Maintaining some parking in proximity to the park and Main Avenue retail is desirable. To accommodate a bike facility, restrict on-street parking from one side of the street. Consider removal of diagonal parking on-street along YMCA or conversion to parallel parking to increase safety for cyclists on-street.

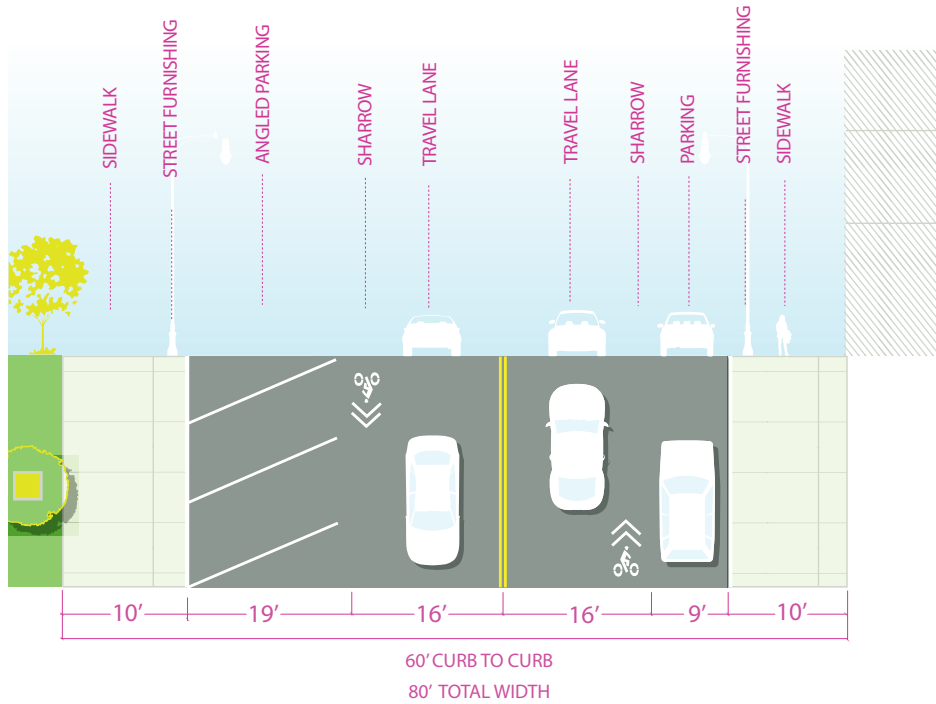
Proposed Section: Space previously utilized as a parking lane will be reallocated to create a dedicated bike lane in each direction. Parallel parking to be maintained on north of the street.



Photo: View down 1st Avenue looking west between 7th St and Broadway.

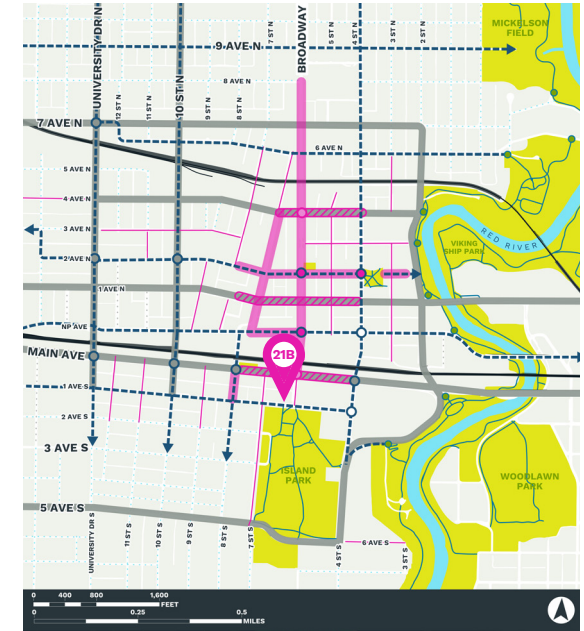
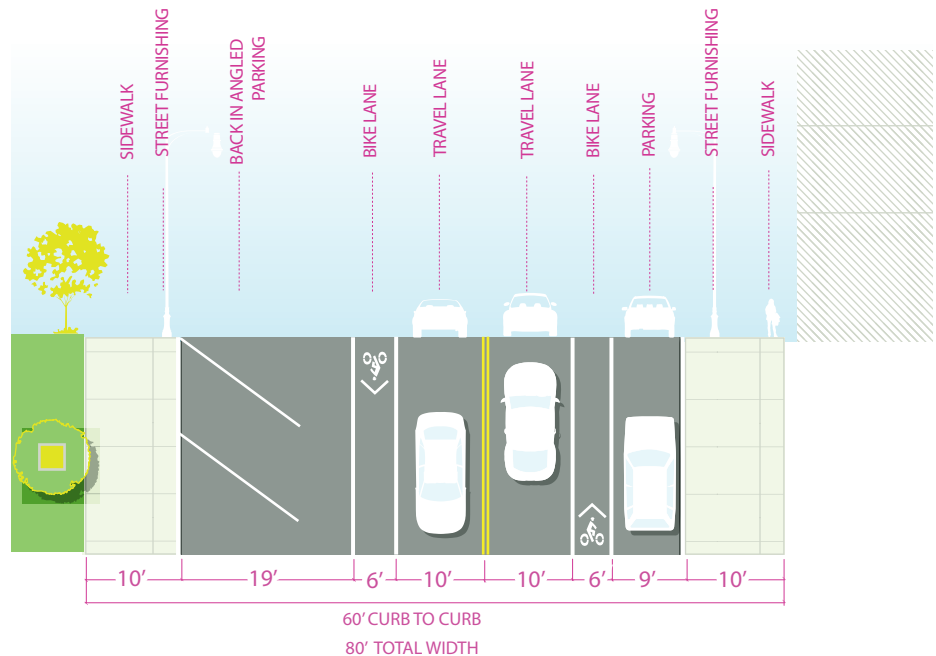
EXISTING on 1st Ave east of Broadway looking west.

FIGURE A43: Existing Section Location at #21b



PROPOSED

FIGURE A44: Proposed Section Location at #21b



Proposed Street Network Map

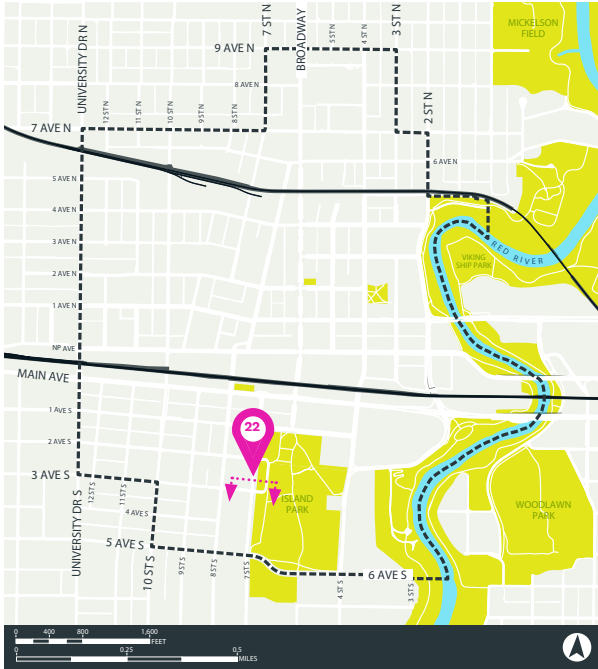
PROPOSED ROLE

1st Avenue will act as the main east-west segment of Fargo's bike network south of Main Avenue (US-10). Maintaining some parking in proximity to the park and Main Avenue retail is desirable.

Proposed Section: Travel lane widths will be reduced to accommodate dedicated bike lanes. Angled parking to be maintained on south side of the street, but will be converted to back-in angled parking.

7th Street South

7th Street South between 1st Avenue South and 5th Avenue South



Existing Section Location

THE BASICS:

Functional Classification: Local

Speed: 25 mph

Number of Lanes: 2 Lanes

Curb-to-Curb width: 36 feet

ROW Width (approximate): 62 feet

Public Transit Route: N/A

CONSIDERATIONS

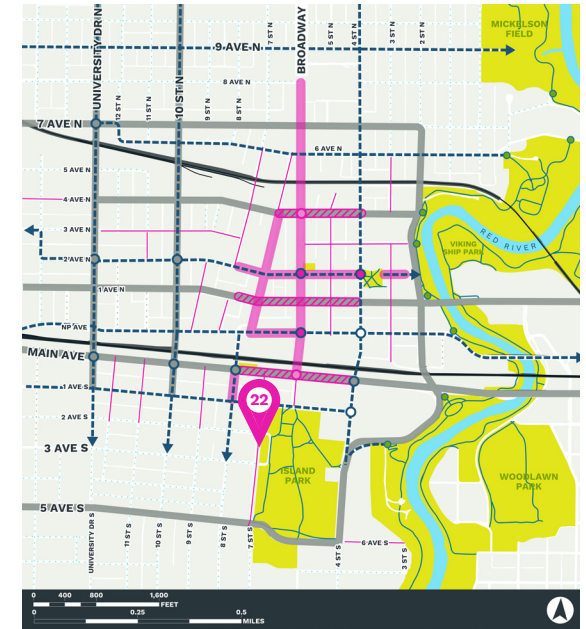
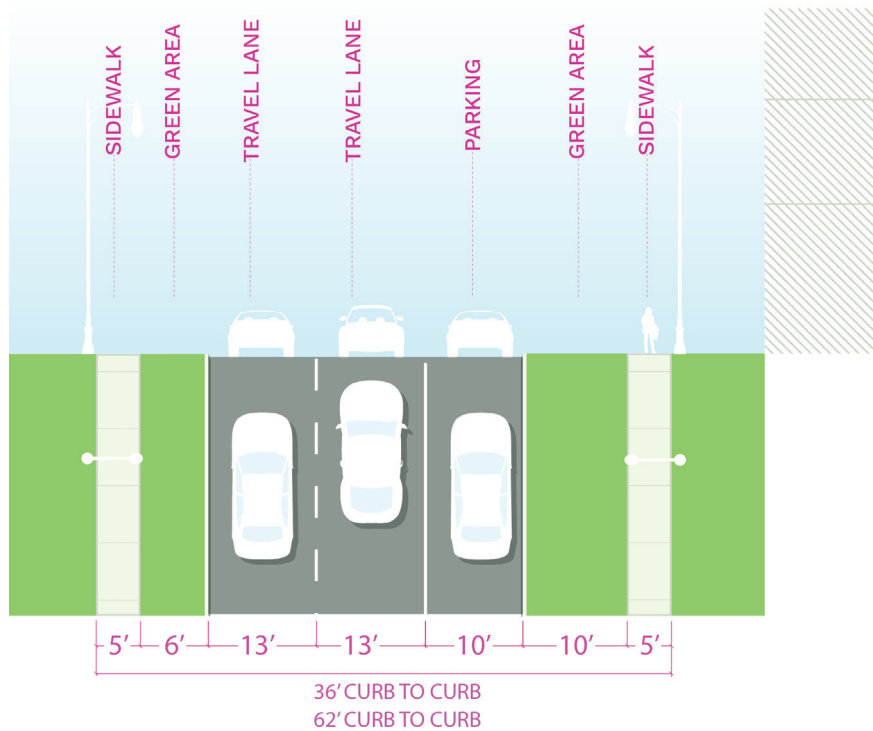
- > Typically on-street parking is desirable along the edge of parks to provide both access by park users who arrive by car, and a buffer between the edge of the park and adjacent traffic.
- > Due to the pathways in the park and only indirect connection from 7th Street South into the central commercial district along Broadway Avenue, the demand for an on-street bike facility on 7th Street South is low.
- > The frequency of driveway curb-cuts along the west side of 7th Street South pose challenges for the design of a safe bike facility.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

EXISTING on 7th St. between 3rd Ave and 2nd Ave S - Looking South

FIGURE A45: Existing Section Location at #22



Proposed Street Network Map

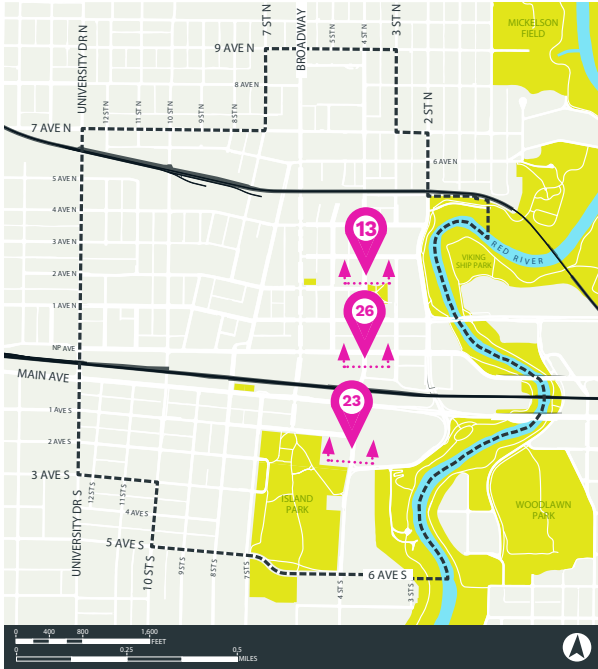
PROPOSED ROLE

The existing 36 foot curb-to-curb width is not sufficient to maintain on-street parking and a bike facility in both directions along 7th Street South. If a bike facility is desired along 7th Street South, consider a one-way contra-flow bike facility paired with a facility in the opposite direction along 8th Street South or 4th Street South.

Proposed Section: Maintain existing section with on-street parking along Island Park.

4th Street

4th Street between 6th Avenue South and 7th Avenue North



Existing Section Location

THE BASICS:

4TH STREET NORTH

Functional Classification: Minor Arterial

Speed: 25 mph

Number of Lanes: 3 Lanes
(varies from 2-4 within study area)

Curb-to-Curb width: 58 feet

ROW Width (approximate): 83 feet

Public Transit Route: N/A

4TH STREET SOUTH

Functional Classification: Minor Artery

Speed: 25 mph

Number of Lanes: 3 Lanes
(varies from 2-4 within study area)

Curb-to-Curb width: 56' feet

ROW Width (approximate): 80' feet

Public Transit Route: 14, 16

CONSIDERATIONS

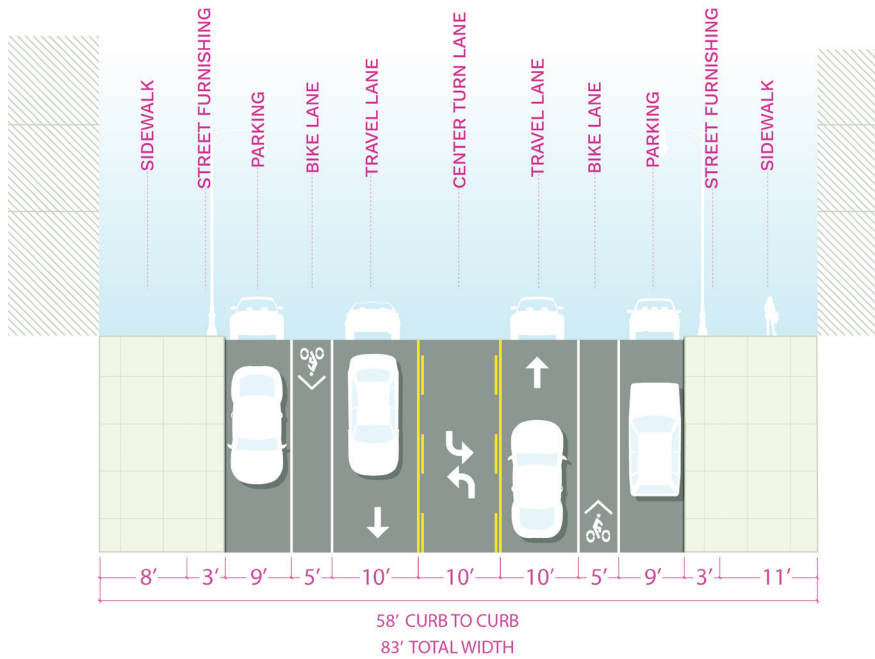
- > 4th Street provides a parallel on-street bike route to 10th Street North and University Drive, east of Broadway Avenue. This street provides connections to City Hall and grounds, the public library, the YMCA, Island Park, the Great Northern Bicyclist Shop, Amtrak Station, Sanford Hospital and two at-grade railroad crossings. It plays an important role in the bicycle network as a major trunkline through the heart of downtown.
- > 4th Avenue holds the most potential to play a **key role in stormwater management** in downtown.

Capacity Analysis:

- > Analysis indicates the street is under capacity.

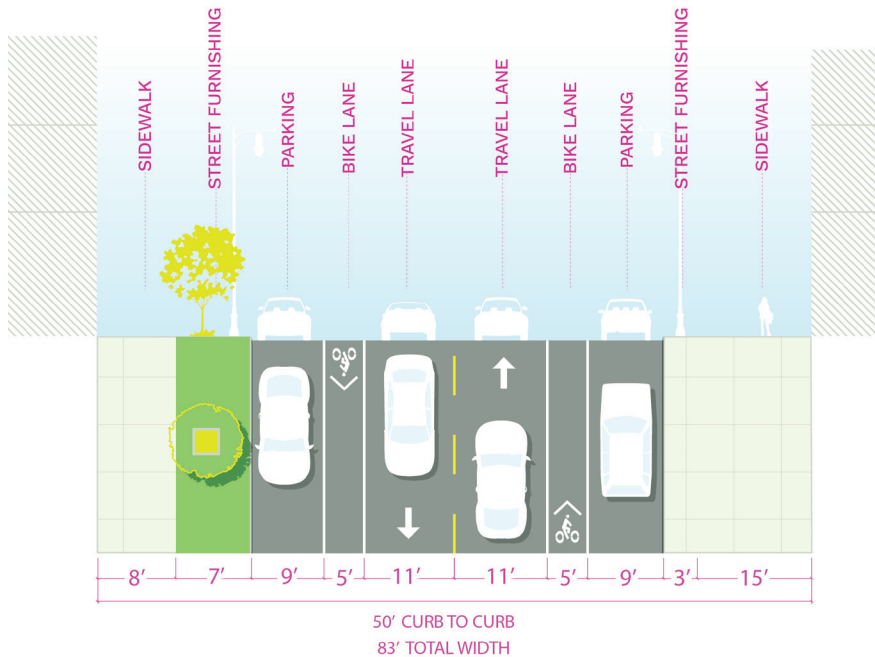
EXISTING

FIGURE A46: Existing Section Location at #13



PROPOSED

FIGURE A47: Proposed Section Location at #13



Proposed Street Network Map

PROPOSED ROLE

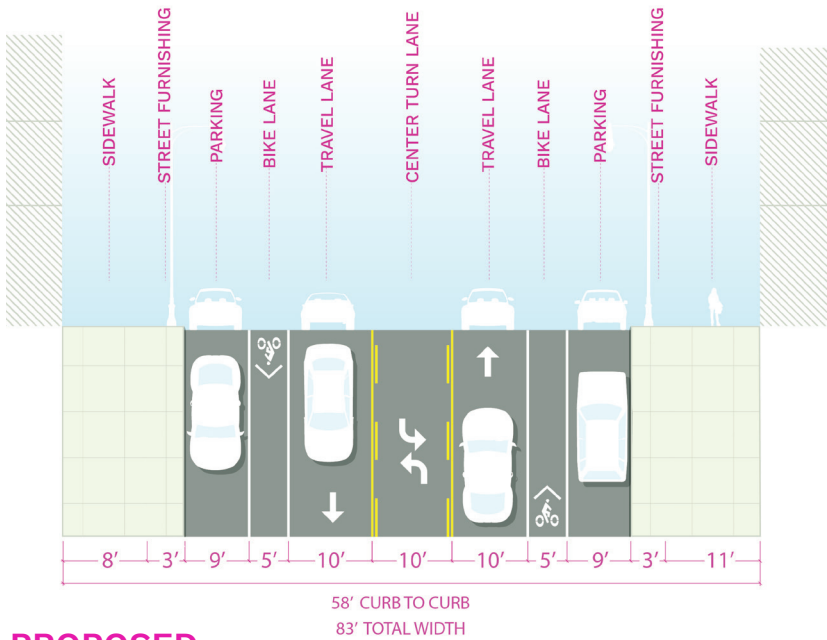
4th Avenue has great reconstruction potential to be designed to better serve people biking and walking, and in the movement of stormwater through downtown. 4th Street also plays a valuable role in the on-street bike network, and will continue to in the future. Retaining a bike facility on street and ensuring comfortable conditions for cyclists by calming traffic should be a major priority in future reconstruction.

Proposed Section: Space dedicated to the central two-way turn lane that runs the length of the corridor north of Main Avenue (US-10) could be reallocated to the edges to allow for expanded sidewalks and green space along most of 4th Street North.

Consider addition of bike facility through Main Avenue (US-10) intersection.

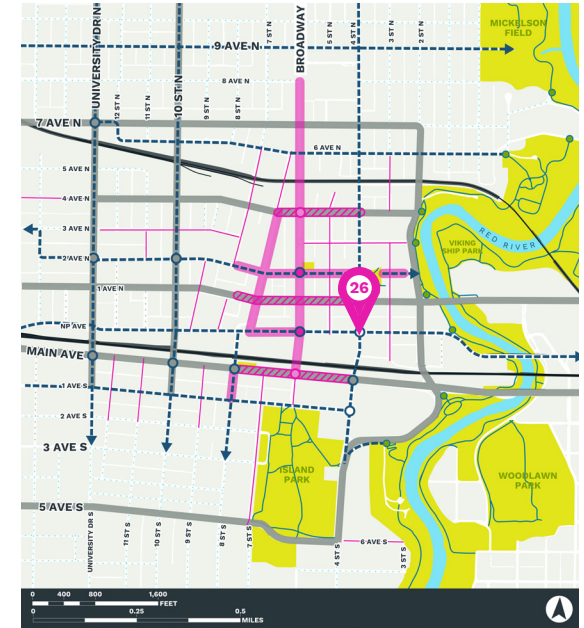
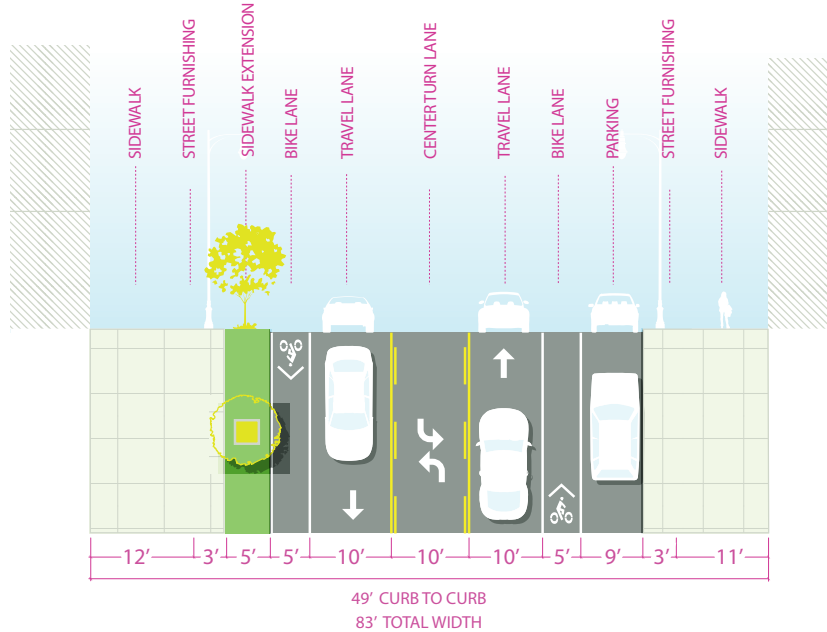
EXISTING

FIGURE A48: Existing Section Location at #26



PROPOSED

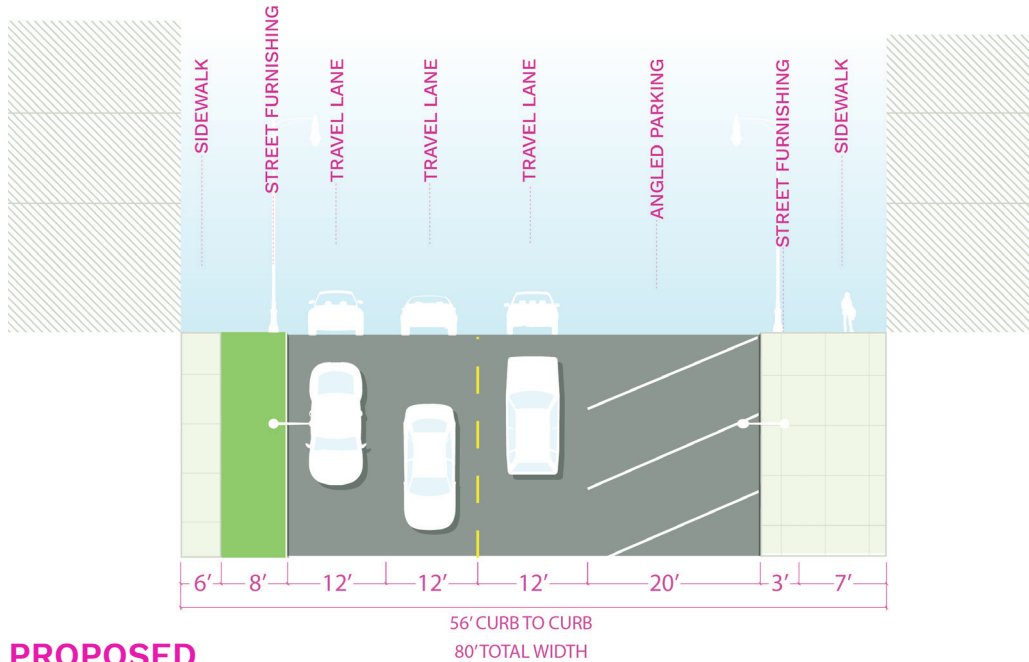
FIGURE A49: Proposed Section Location at #26



Proposed Street Network Map

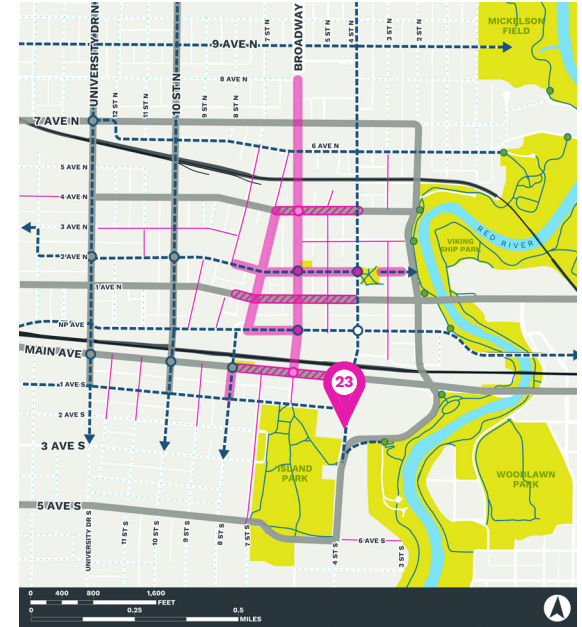
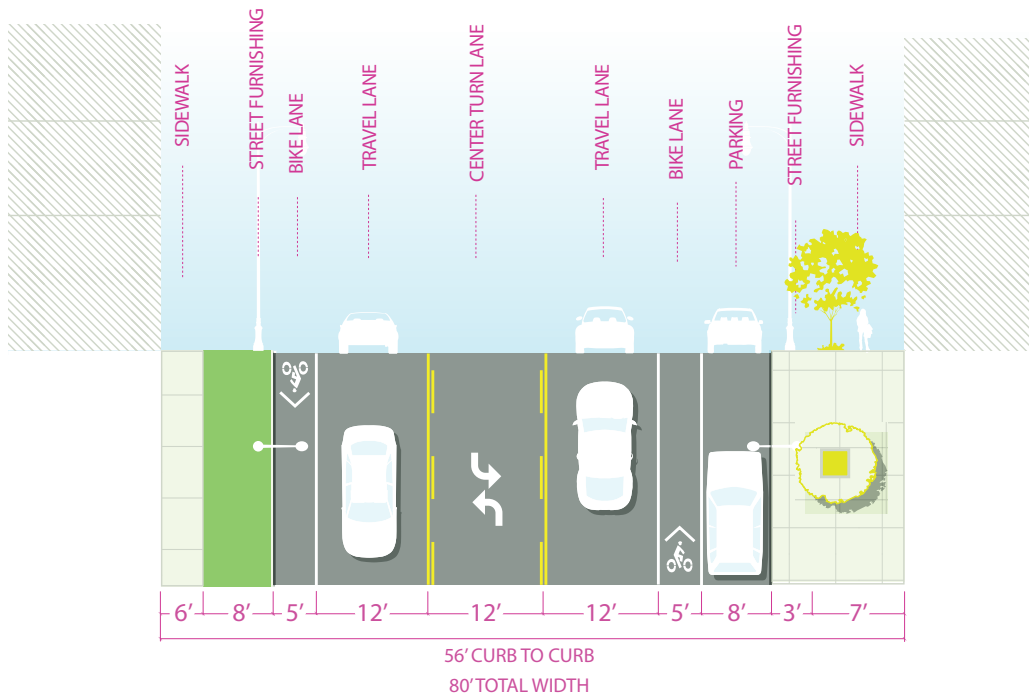
EXISTING

FIGURE A50: Existing Section Location at #23



PROPOSED

FIGURE A51: Proposed Section Location at #23



Proposed Street Network Map

PROPOSED ROLE

4th Avenue has great reconstruction potential to be designed to better serve people biking and walking, and in the movement of stormwater through downtown. 4th Street also plays a valuable role in the on-street bike network, and will continue to in the future. Retaining a bike facility on street and ensuring comfortable conditions for cyclists by calming traffic should be a major priority in future reconstruction.

Proposed Section: Space dedicated to angled parking could be reallocated to the creation of separated bike lanes. Parking will be maintained in the form of parallel parking, and a southbound lane could be repurposed as a center turn lane.

